上海英界仁路第五號記

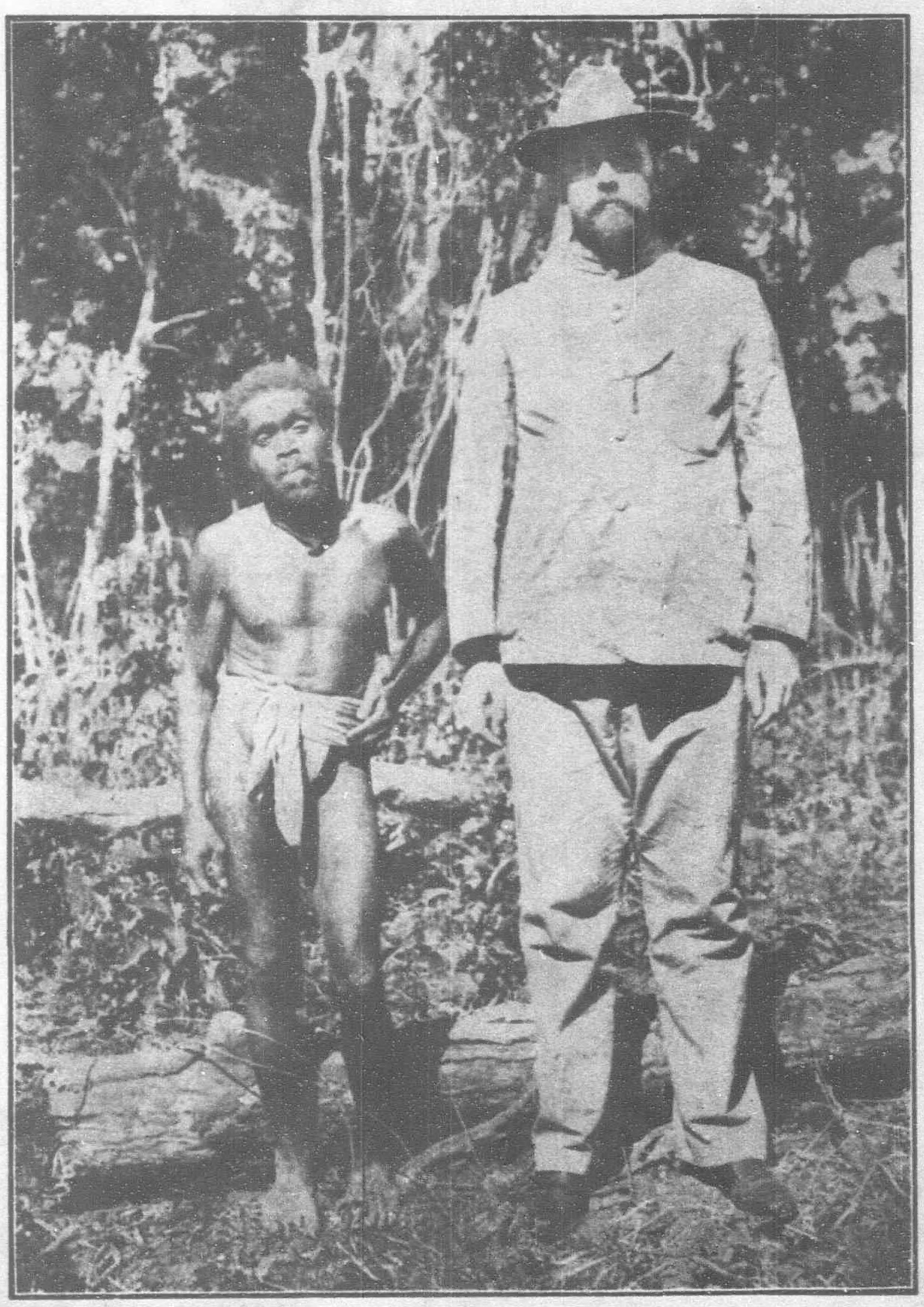
THE FAR EASTERN REVIEW

Engineering
Finance ❋ Commerce

遠東時報

Vol. IX., No. 9. ❋ SHANGHAI—MANILA ❋ February, 1913.

Contents



A TYPICAL NEGRITO MAN WITH SECRETARY WORCESTER

This photograph shows the relative size of the Negritos compared with a six foot American

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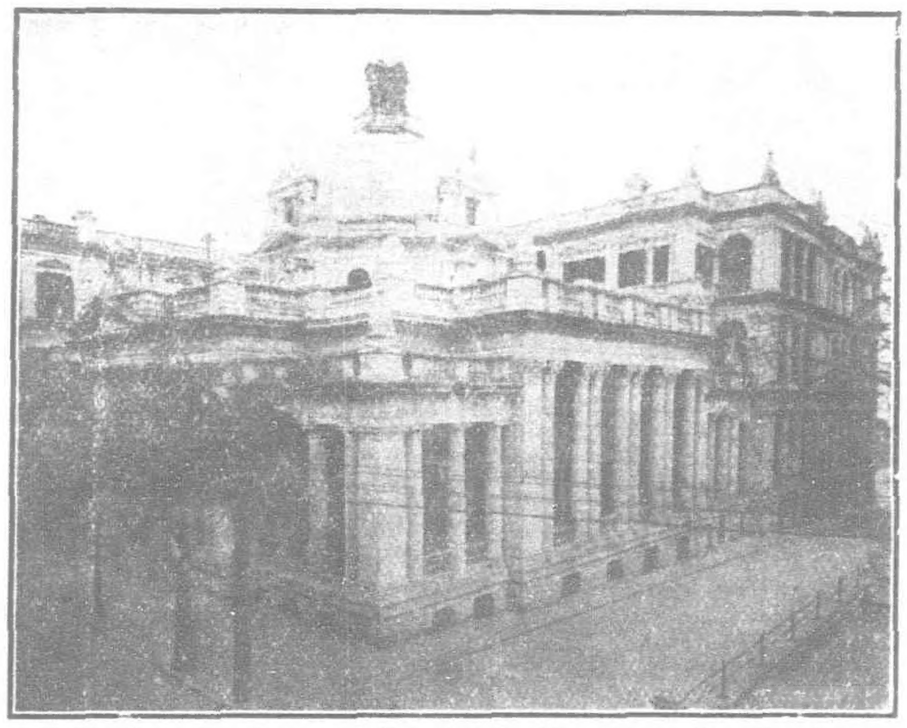

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THE FAR EASTERN REVIEW

COMMERCE :-: ENGINEERING :-: FINANCE

VOL. IX. SHANGHAI AND MANILA, FEBRUARY, 1913 No. 9

LESSONS IN CIVILIZATION

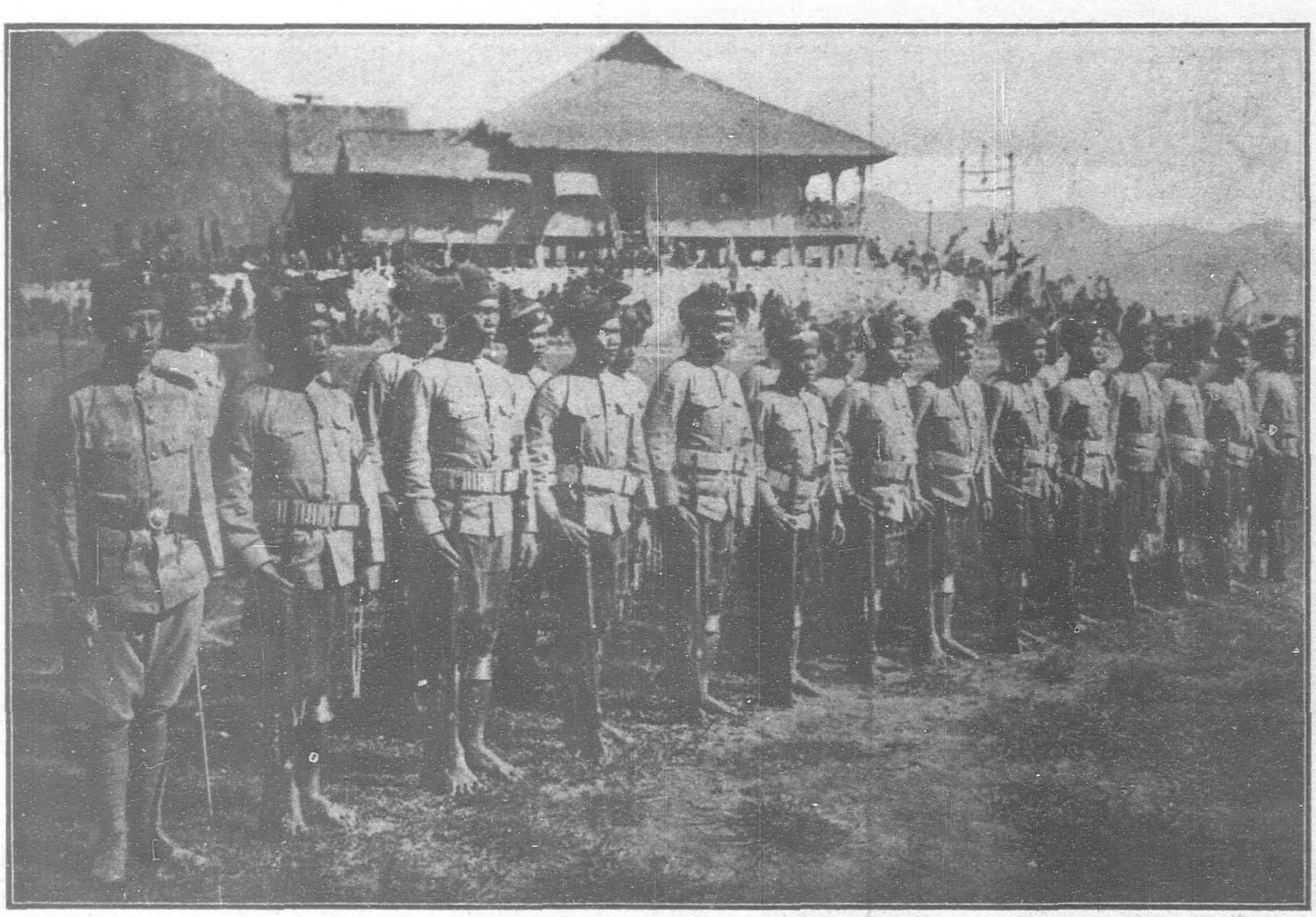
THE "WILD PEOPLE" OF THE PHILIPPINES

"A barrier reef, sloping abruptly from deep water to the very surface of the sea, borders this coast for scores of miles. Even in periods of apparent complete calm the long Pacific swell breaks on the edge of this reef in such a manner as to make landing quite impossible.

Although it had been claimed that there were no ports for anything bigger than native dugouts, we found several fairly good small harbors, none of which were shown on the chart. Indeed, long stretches of the coast-line proved to be 10 to 15 miles out of place. We were able to land in these harbors, as well as at several other points where small freshwater streams had prevented the growth of coral, so that there were passages through the reef to the sea. The approach of our steamer caused consternation among the Negritos, and we could plainly see them abandoning their "houses" in all haste and running for the jungle, where they remained in hiding in spite of all our efforts to get into communication with them."

"Governor Miller was drowned in the discharge of his duty. Mr. Bondurant, assistant to the governor, died of pernicious fever on the evening of his last day's work in the field. Mr. W. B. Dawson, the first superintendent of the Aborlan School, died of malaria at his post, and Mr. Wooden, the second superintendent, was drowned while hastening back from the provincial capital."

These are not extracts from a book such as "Treasure Island" they are, on the contrary, matter-of-fact statements from official and unofficial reports by Dean C. Worcester, the Secretary of the Interior, Philippine Islands. Mr. Worcester's reports read like romances, and they lose nothing of the romantic because they are based on the actual doings of a handful of Americans, who are devoting the best years of their lives to the moral and material upraising of the Filipino people. In previous issues of the REVIEW, we have referred to the magnificent work for civilization which is being accomplished in the wilder portions of the Philippine Islands. But each successive report impresses us the more vividly with the superb self-sacrifice and splendid courage of these men who are doing things of which little is heard, and for which there is practically no reward except the consciousness of having faced a difficult and delicate problem fearlessly and with success.



IFUGAO CONSTABULARY SOLDIERS

These men are brave, efficient and loyal, and shoot with remarkable accuracy

In his report to the Government under date: Manila, September 18th, 1912, Mr. Worcester gives a brief retrospect of the work done among non-Christian tribes. He concludes the report by saying: "It is impossible by words alone to bring home to the public the extraordinary character of the progress which is being made by the people of this little known tribe (the Bukidnon people). In preparing this report I have attempted to illustrate this progress by the liberal use of photographs, in the hope of thus bringing the facts home more effectively than would otherwise be possible." This statement is absolutely correct, as words must necessarily fail to give an adequate idea of the conditions of life and the peculiarities of the people, amongst whom the work of reformation is proceeding. We have, therefore, largely followed in this Mr. Worcester's example and have reproduced some of the excellent photographs which illustrated his annual report and the striking article entitled "Head-Hunters of Northern Luzon," which he contributed to the *National Geographic Magazine*.

Attention is drawn in the report, to the fact that the Philippine Commission, in August, 1911, passed an Anti-Slavery Act, which rendered immediately possible the release of a considerable number of Ifugaos held in slavery or involuntary servitude by Filipinos in Nueva Vizcaya. In that locality, the road and trail system has been extended and improved, and increased control has been established over the scattered Ilongots who inhabit the great forest area recently added to the province.

In the Mountain Province, the wild inhabitants number some 400.000. Here, also, road-making has been pushed on and this applies to Ifugao, Bontoc, Kalinga, Apayao, Lepanto, Amburayan, Benguet, Mindoro, Palawan, Agusan and Bukidnon.

One touching little incident is related in connection with Captain Jeff D. Gallman, Lieutenant-Governor of Ifugao. At the time of Mr. Worcester's annual visit to Kiangan, Lieutenant-Governor Gallman was lying in the Bontoc Hospital recovering from a severe surgical operation. His absence from the festivities was deplored by the Ifugaos, who insisted on singing and dancing in the room in which the telephone was located in order that he might hear the resulting uproar while lying in his bed 70 miles away, and one of the chiefs, standing before the telephone, made a speech for his benefit. The people then insisted on hearing his voice, in order that they might be sure that he was alive.

Mr. Worcester points out, in reference to his annual northern inspection tour, that the need of entertaining the great crowds of wild men who meet the Secretary of the Interior on these trips is imperative, and at times embarrassing. The gatherings often include large numbers of men who have until recently been bitter enemies, and who are liable to indulge in untimely reminiscences, with unfortunate results, if not kept actively occupied. This problem was solved in part in a somewhat novel way by taking a portable moving-picture outfit and showing their wild friends something of life in a world heretofore beyond their ken. At the same time the party took cinematograph films designed to afford an accurate and permanent record of characteristic scenes and events in the now rapidly changing life of these comparatively primitive tribes.

We take the following further interesting extracts from the report of the Secretary of the Interior:—

THE PROVINCE OF MINDORO.—Rapid progress has been made in Mindoro during the year. A small, but very useful, cement pier has been constructed at the capital. The road and trail system has been rapidly pushed. One can now ride from Calapan to Pinamalayan. The trail system will be extended around the entire island as rapidly as circumstances will permit.

The Filipino towns have become models of cleanliness and good sanitation. They afford a valuable demonstration of what can be done to better shocking insanitary conditions where effective control is possible. The contrast between sanitary conditions in the Mindoro towns and in the towns of the regularly organized provinces is very striking. One most gratifying practical result is that the Mindoro schoolhouses are all becoming much too small. The towns swarm with happy, healthy youngsters who are now growing up to useful citizenship instead of meeting the untimely death which awaited so many of the children when almost every yard harbored some reeking source of disease.

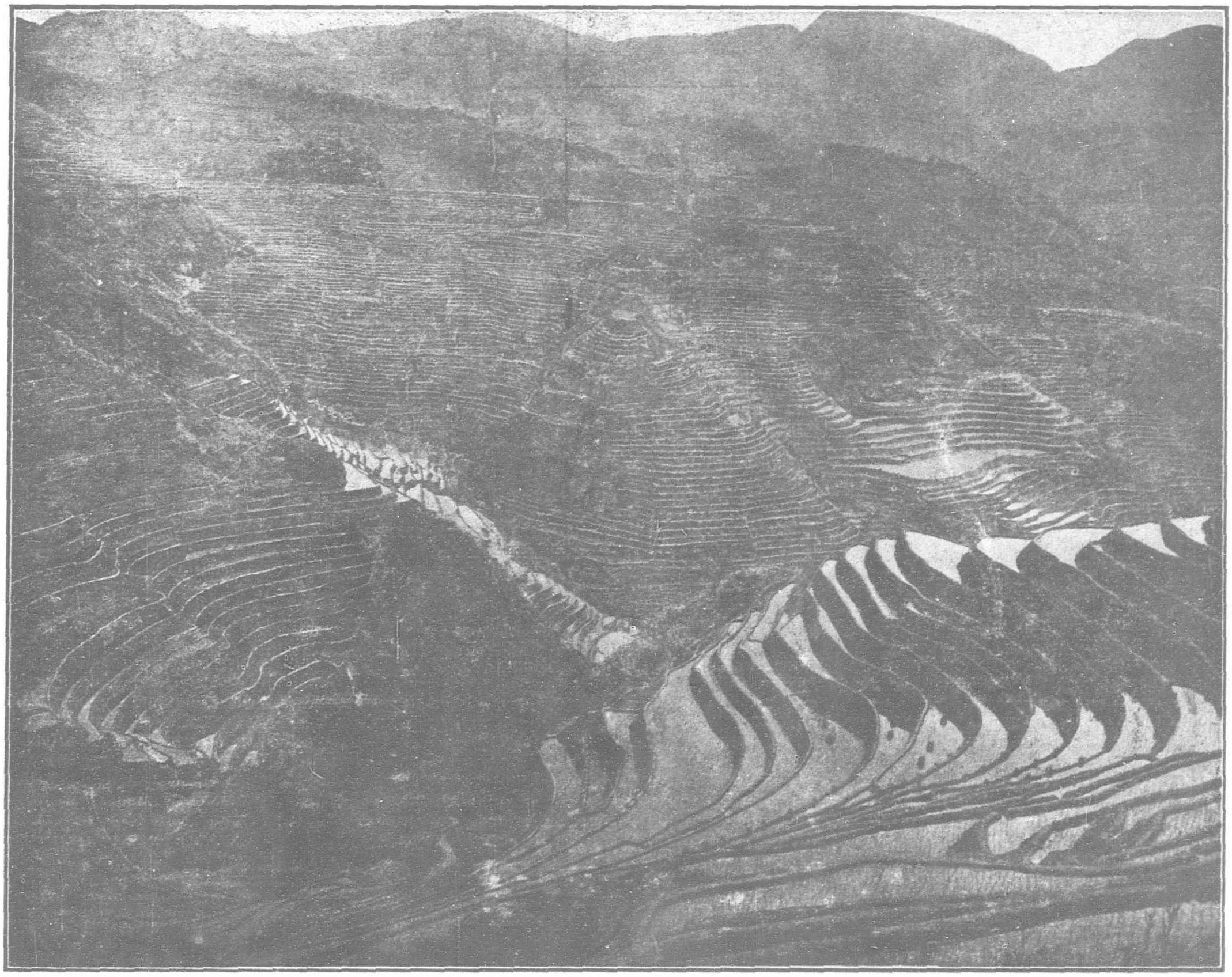
The work for the Mangyans has been actively pushed. Our knowledge of these semi-nomadic but gentle and harmless savages has been materially increased. Some of them have been persuaded to build villages and settle down to a more orderly life. Several new schools have been established for Mangyan children, who prove to be bright, capable pupils.

Many parts of Mindoro suffered very severely from the drought, and some care has been necessary in order to keep the people on the outlying small islands supplied with rice.

After more than five years of faithful and efficient service, the governor of the province, Captain Louis J. Van Schaick, U. S. Army, tendered his resignation, anticipating the necessity of returning to his regiment upon the passage of the Army and Navy appropriation bill then pending, and desiring to enjoy a well-earned leave before reporting for duty. The resignation from the special government service of an efficient officer who has profited by so many years of experience is a serious loss. The vacancy has been filled by the appointment of Mr. R. E. Walters who has long been employed by the Bureau of Lands in a capacity which has brought him into constant and close touch with the poorer Filipinos, whose right in the matter of land holdings he has had frequent occasion to defend. It is believed that this experience will especially fit him to protect the interests of the Mangyans, who are still in many instances mercilessly exploited by the Filipinos of the coast towns.

Ability to find profitable employment on the San José Estate and on the Mindoro Company's holdings has been a valuable asset for the working people of Mindoro during the trying drought. A few Mangyans, even, have sought employment there.

THE PROVINCE OF PALAWAN.—The provincial service of Palawan and the special province service in general met with a serious and deeply regretted loss in the death of the assistant to the provincial governor, Mr. Olney E. Bondurant, caused by pernicious malarial fever. He died at Balabac on January 20, 1912, soon after his return from the United States. Mr. Bondurant had immediate charge of



THE WONDERFUL RICE TERRACES OF IFUGAO—GENERAL VIEW OF VALLEY

southern Palawan, the territory under his jurisdiction including all of the Moro and most of the Tagbanua country. He had rendered very important service in connection with the moving of renegade Moros from the west coast and had made rapid progress in the establishment of helpful and friendly relations with both Moros and Tagbanuas. He was a fearless, tireless, efficient officer. Even when attacked by the illness which ended his life he refused to give up, but rendered service in the field on the day of his death. His death was keenly regretted by many of the unruly Moros whom he had brought under Government control and whose interests he carefully safeguarded as long as he lived.

The vacancy which it created was filled by the appointment of Mr. Lewis Carrigan, who had previously held the position of superintendent of schools in Agusan and had there actively taken part in work for the betterment of wild people.

The Moros of Palawan are now astonishingly friendly. I recently visited their towns without a guard. No member of my party carried a weapon of any sort. At the invitation of the Moro chiefs we sat at meat with them. The wives of the ranking chiefs appeared publicly during our visit. These latter two occurrences are unprecedented in my experience. Dato Tumay, whose men attacked my escort two years ago, showed me with great pride that he had built with his own hands the best house in Bonabona and was himself tilling the largest piece of land cultivated by a Moro in Palawan. Plows and other agricultural implements were requested by the Moros and have been furnished them.

The drought would have produced actual famine in the Moro country had it not been for Government assistance in the form of opportunity to work for rice, the affording of which was highly appreciated and has gone far to promote friendliness.

Most satisfactory progress in dealing with the Tagbanuas has been made possible by the transfer from the west coast of the Moros who formerly so persistently plundered them and the establishment of effective Government control over the entire Moro population of Palawan.

The opening of so-called Government exchanges where the Tagbanuas can sell their products and can purchase what they need at reasonable prices has greatly pleased them and is bringing about helpful contact between provincial officials and wild men from the most inaccessible regions.

Trail work has been rapidly pushed. During much of the year it is now possible to ride a horse from Puerto Princesa Bay to Bonabona. An excellent line has been staked across the island from Separation Point to Alfonso XIII, and construction work has commenced.

The Tagbanuas, like the Moros, are beginning to display willingness to settle in villages. Although heretofore somewhat prone to use blowguns and poisoned arrows in the defense of their rights, and in standing off strangers as to whose intentions they entertained doubts, they are naturally industrious agriculturists, raising more than enough rice for their own needs. The opportunity now afforded them to sell their surplus products and to improve their agricultural methods should lead to rapid progress.

In order to prevent trespass by Filipinos upon their cultivated land, a Government reservation has been set aside for them at Aborlan, where a Tagbanua Industrial School is located. Families are settling on this reservation in constantly increasing numbers. A large tract of land has been cleared and planted. The school is accomplishing important results, although its work was interrupted during the year by the death of its superintendent, Mr. William M. Wooden, who was drowned in the surf while trying to swim ashore from a launch.

While much has been accomplished in bettering the condition of the people of Palawan, the cost to date in valuable lives has been heavy. Governor Miller was drowned in the discharge of his duty. Mr. Bondurant, assistant to the governor, died of pernicious fever on the evening of his last day's work in the field. Mr. W. B. Dawson, the first superintendent of the Aborlan School, died of malaria at his post, and Mr. Wooden, the second superintendent, was drowned while hastening back from the provincial capital. The results for which these splendid men paid so dearly are worth the cost if they are to be *permanent*. Were they to be rendered futile by the premature withdrawal of American control, the price would indeed be dear.

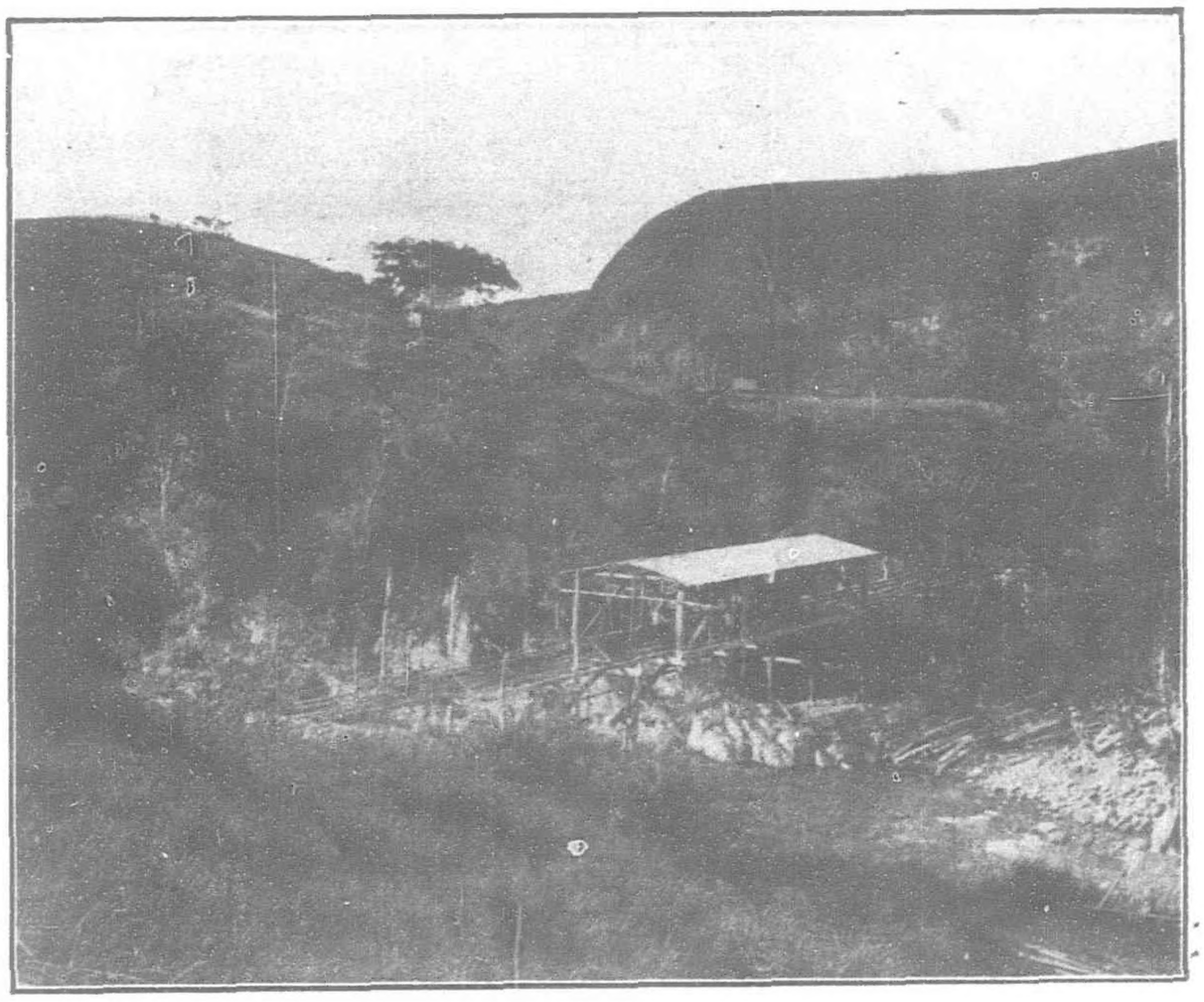
During the absence of Governor Evans, his duties were performed by the provincial treasurer, Mr. Clark, who was already carrying a heavy load at the time he assumed them. Governor Evans' return from leave made possible the more active prosecution of work in central and northern Palawan and in the adjacent islands.

THE WONDERFUL RICE TERRACES OF IFUGAO—NEAR VIEW SHOWING STRUCTURE OF TERRACE WALLS

FINISHED TRAIL BUILT BY IFUGAOS

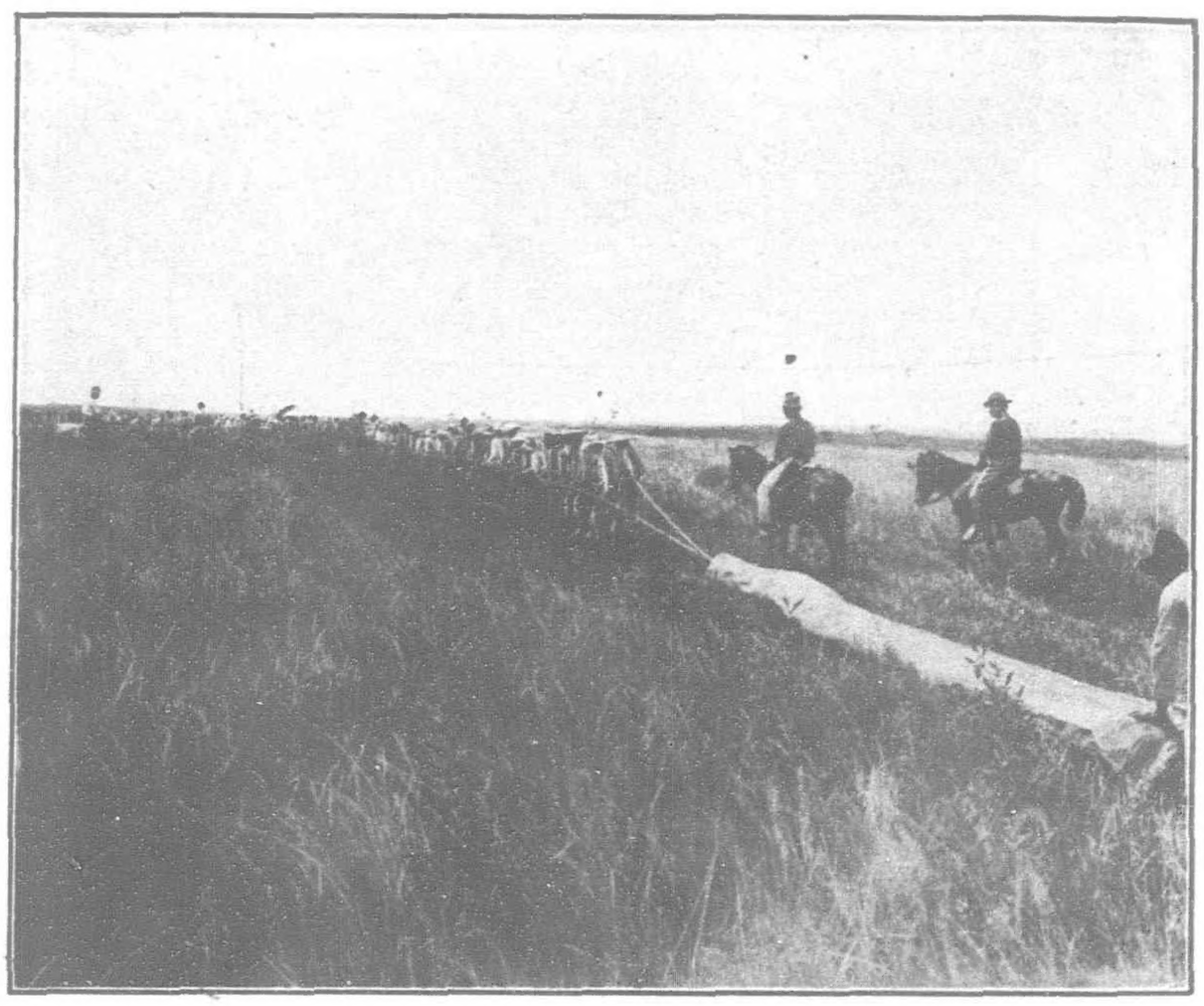
BUKIDNON VOLUNTEERS

The Bukidnon people are aiding effectively in policing their own territory. These volunteers, armed with Springfield carbines of the old type, did very effective work in killing, capturing and dispersing the members of a band of outlaws which murdered fourteen people. Stripped of all superfluous clothing and carrying neither luggage nor rations, they moved very rapidly and seemed able to remain in the field indefinitely, living on the products of the forest.



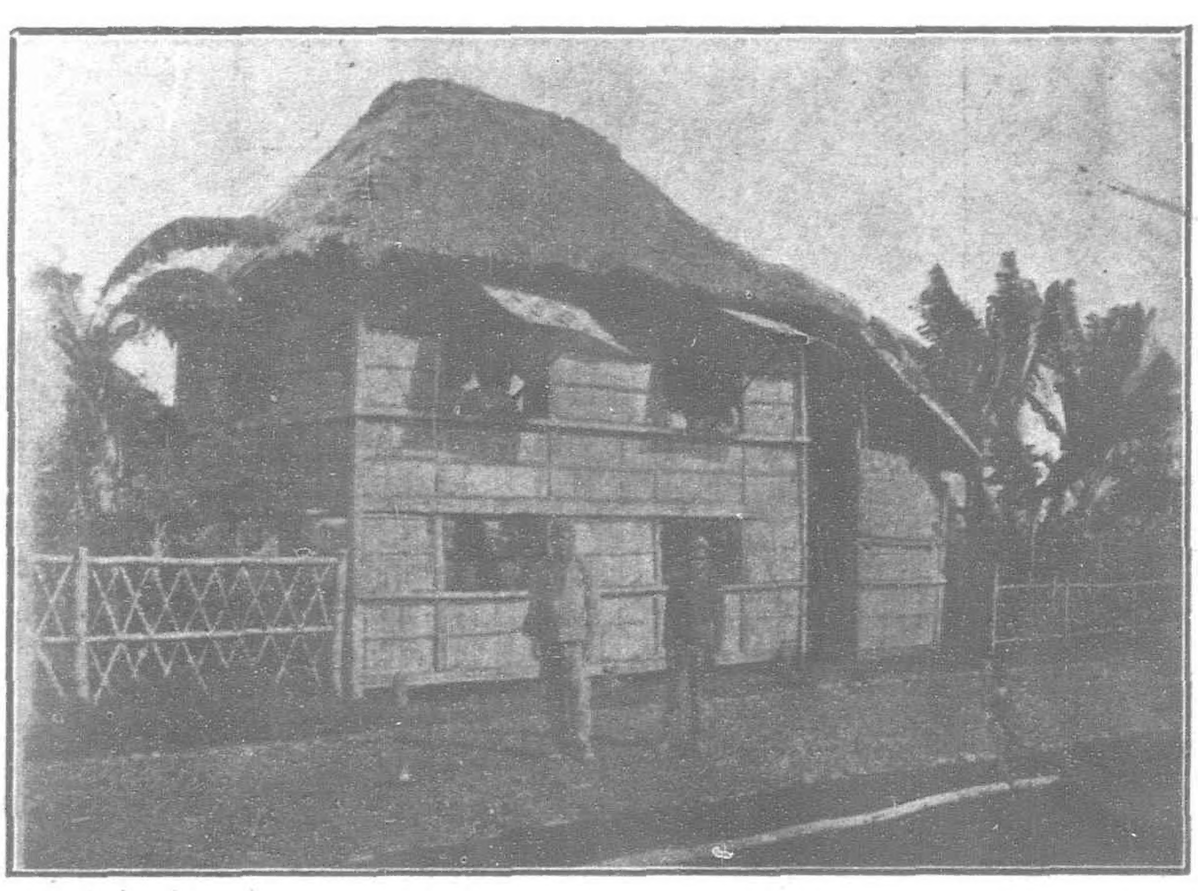
OPENING UP COMMUNICATION IN BUKIDNON

This bridge, 300 feet long, with a central span of 75 feet, is being built by the Bukidnon foreman Leoncio.



OPENING UP COMMUNICATION IN BUKIDNON

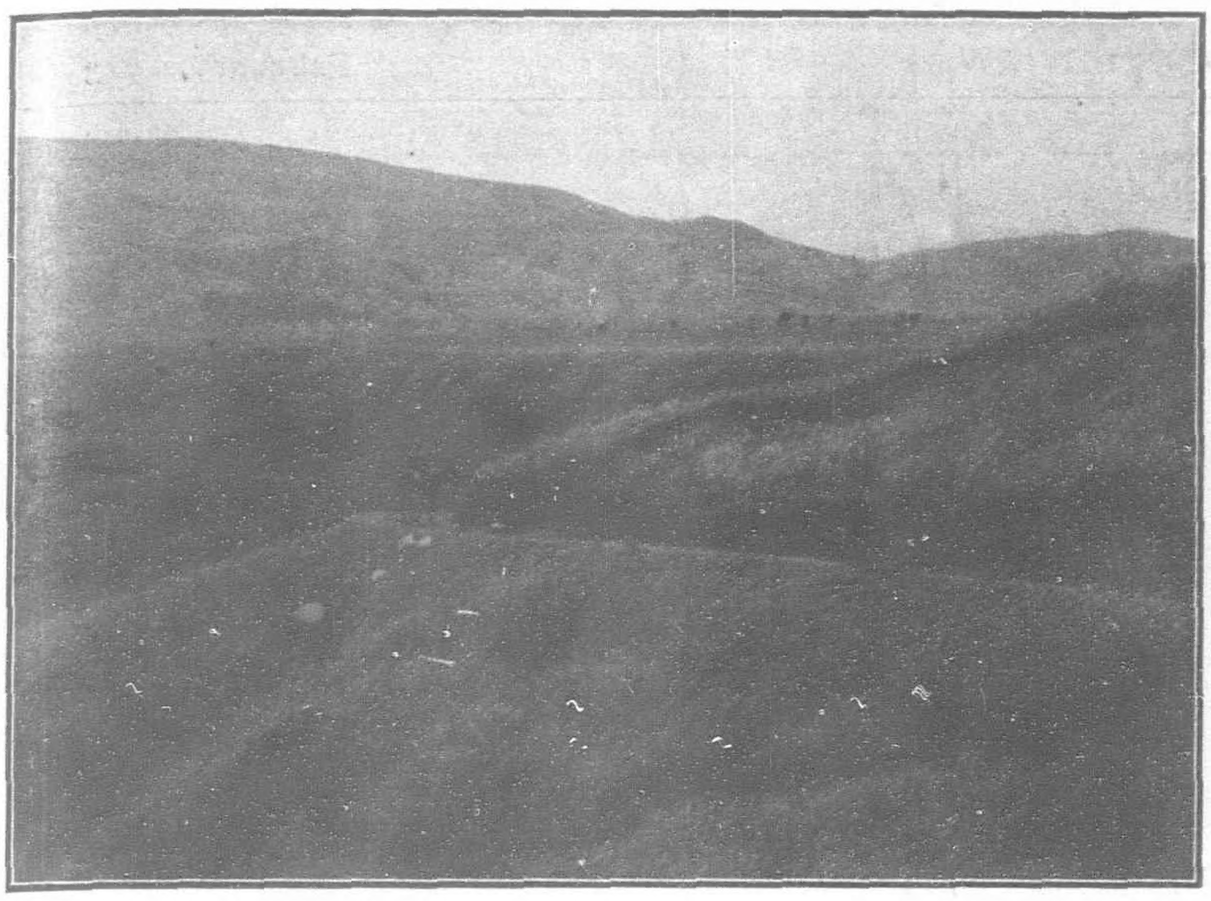
Bringing in a bridge timber. The heavy hardwood timbers used in bridge construction are often dragged for ten or fifteen miles by hundreds of men. The towns vie with each other in the construction of excellent bridges which cost the subprovince nothing except the price of the iron bolts required to fasten the timbers together.



A BUKIDNON HOUSE OF THE NEW TYPE

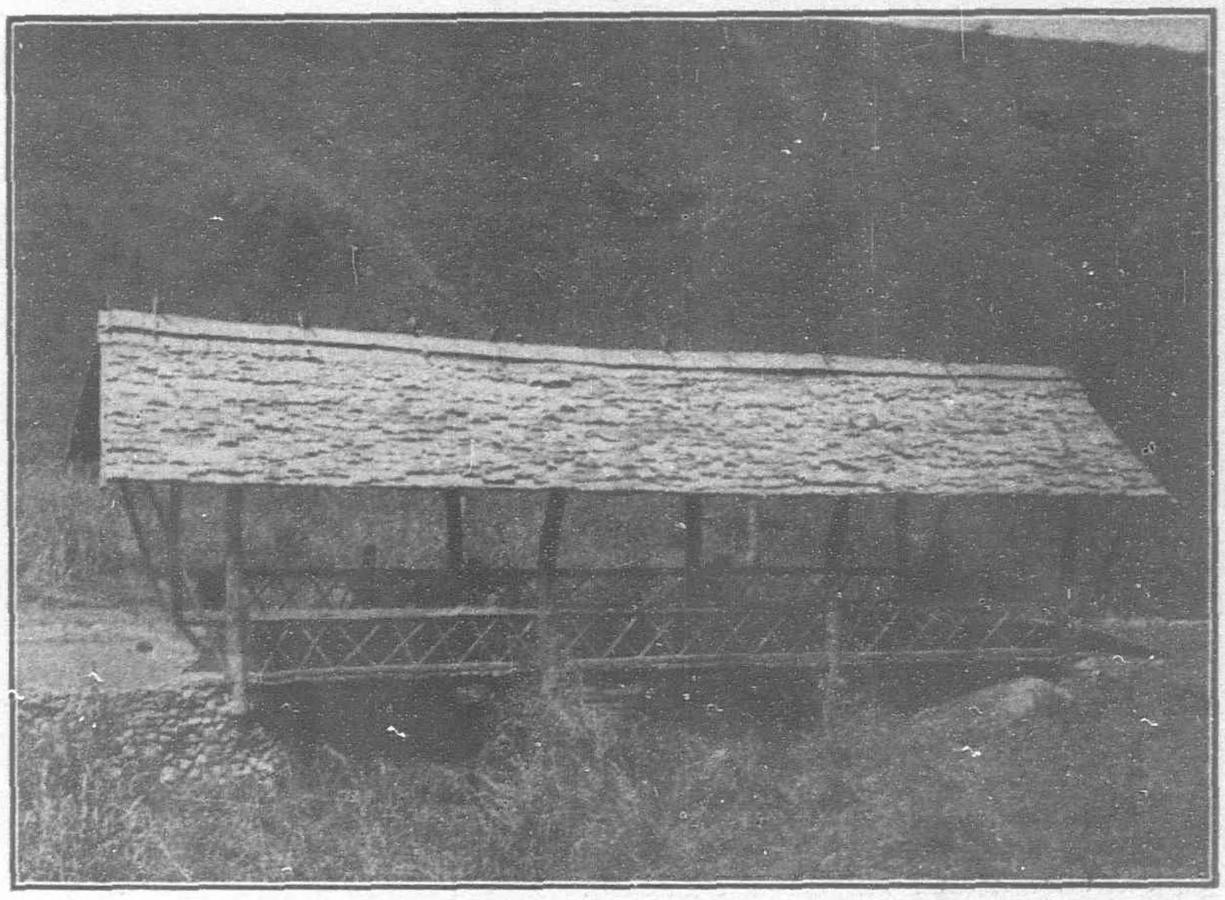
FINISHED TRAIL BUILT BY IFUGAOS

Note the irrigation ditch. The grades on many of the trails are such that irrigation water can be carried in ditches beside them for long distances.



TYPICAL LOW-GRADE TRAIL LEADING INTO A CANON

The level plains of Bukidnon are cut at rather frequent intervals by canons, some of which have a depth of a thousand or more feet. The old trail into and out of them ran at impossible angles and made it very difficult for pack animals to carry even moderate loads. The difficult problem of building low-grade trails through them has been successfully solved.

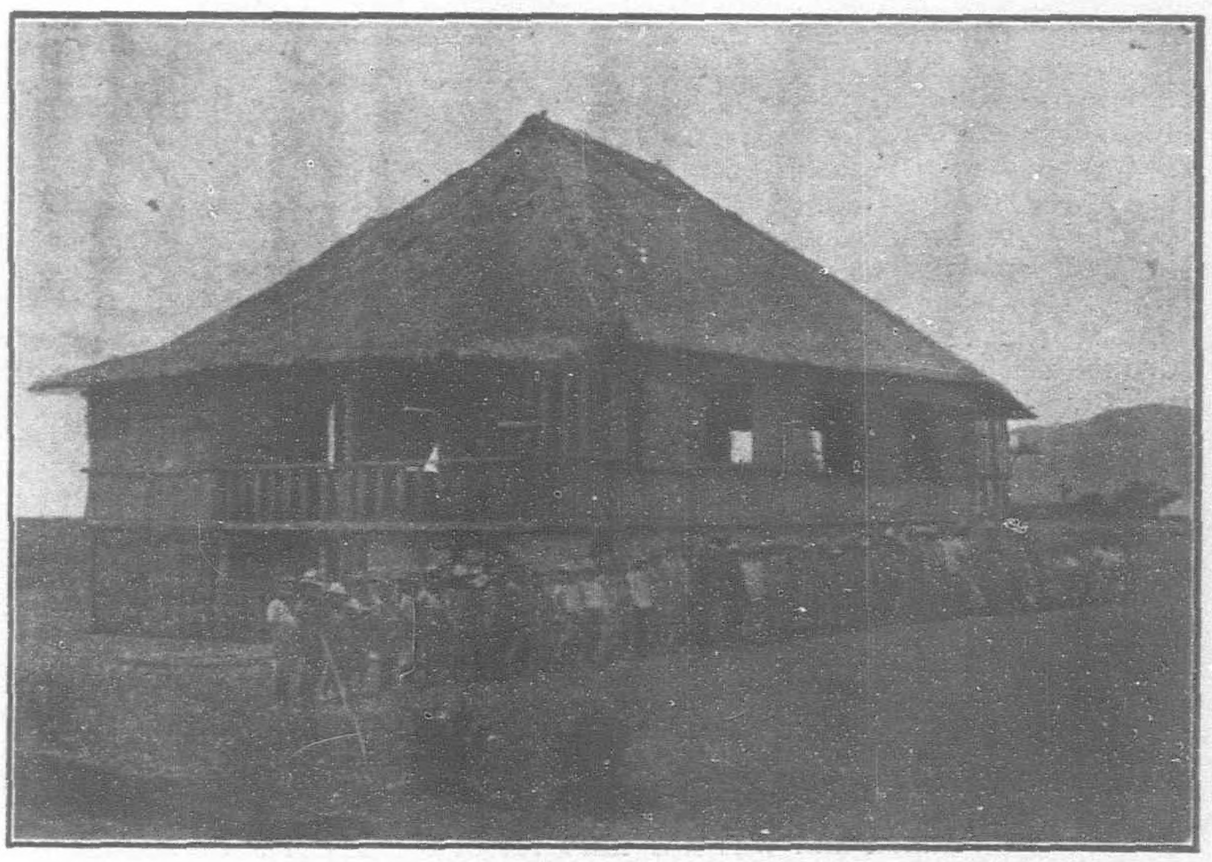


OPENING UP COMMUNICATION IN BUKIDNON

A typical bridge over a small stream. There are more than a hundred bridges between the coast and the subprovincial capital, rendering it unnecessary to ford a single stream. At the outset, there was not a bridge nor a culvert in the subprovince and travel was impossible during heavy rains. Now it is never interrupted by high water.

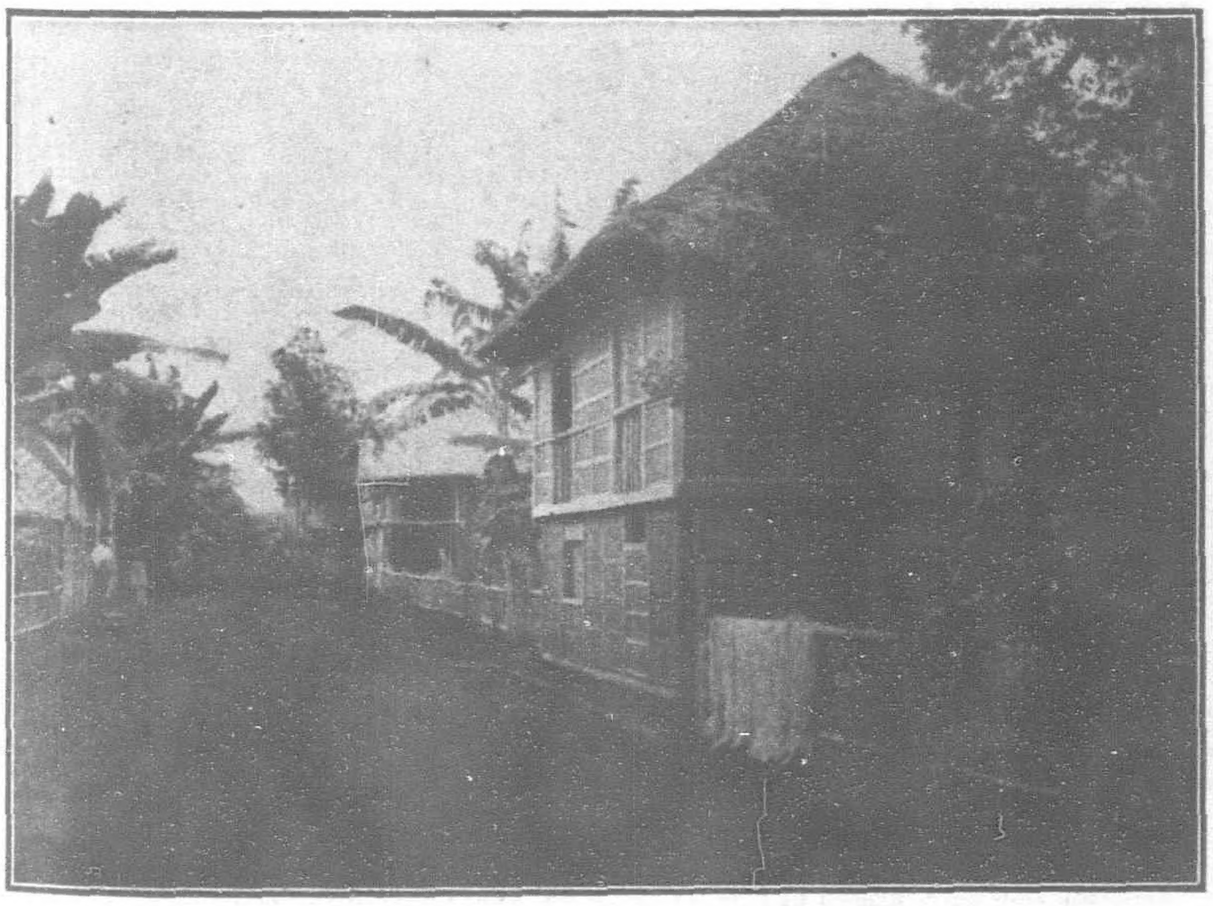
PRACTICAL INSTRUCTION

Bukidnon school boys learning to break sod with mattocks. Heretofore the Bukidnon people have thought it impossible to break the sod of the rich grass land.



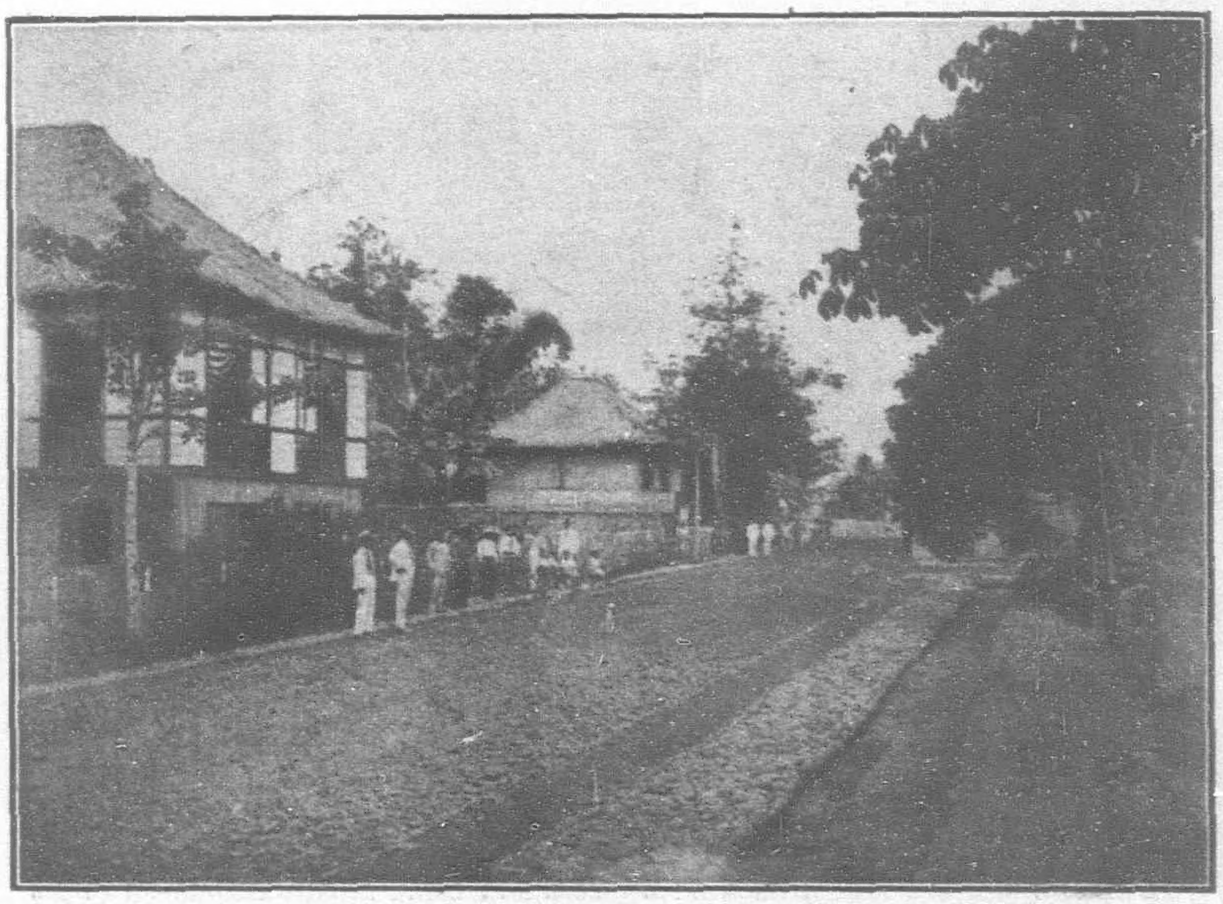
A TYPICAL SCHOOL HOUSE IN BUKIDNON

The pupils in the foreground. The people of each Bukidnon village are only too glad to build a school-house aud a dwelling-house for a teacher if assured that one will be assigned to them. The Bureau of Education is not only teaching the children English, Arithmetic, etc., but is giving practical instruction to boys in Agriculture and to the girls in Weaving, Sewing, and other household arts.



A TYPICAL STREET IN A NEW BUKIDNON TOWN

The towns which are being built up by the members of this non-Christian tribe are models of cleanliness and sanitation.



A TYPICAL STREET IN MALAYBALAY, THE CAPITAL OF BUKIDNON

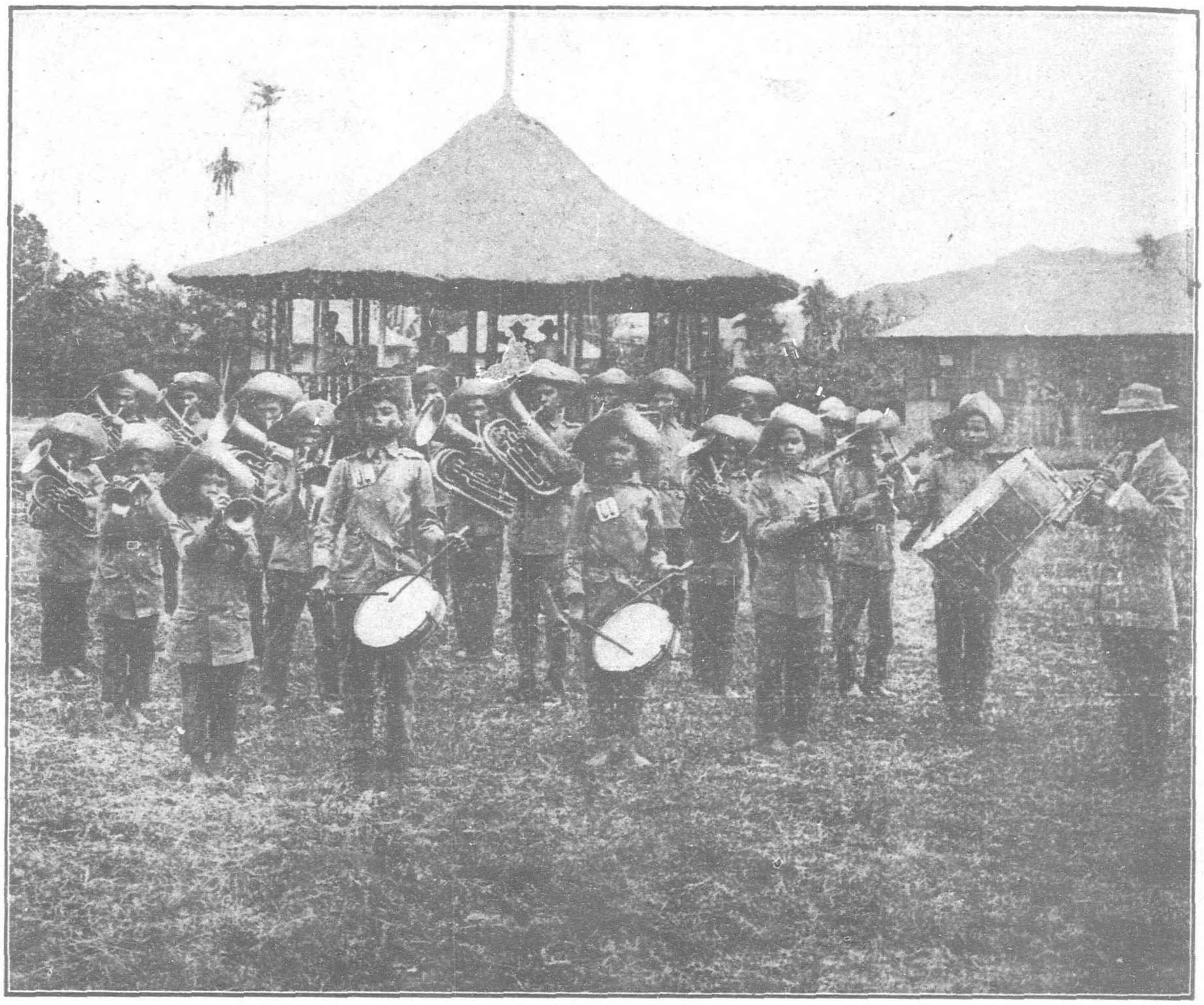
Note the stone sidewalks and the gravel surfacing on the streets.

Encouraged by the results of the sanitary campaign so successfully carried out in Mindoro, I have inaugurated a similar one in the Filipino towns of Palawan. Bad conditions at Puerto Princesa and at Cuyo have already been remedied to a large degree and the work will be carried into the smaller towns and barrios as rapidly as practicable.

Palawan suffered even more severely from the drought than did Mindoro. Coconut palms and even forest trees were killed. Dry weather apparently favored the reproduction of a common caterpillar which became a scourge, eating such crops as the drought spared. In a number of places actual famine was averted only by providing opportunity to labor on public works and obtain payment in rice.

THE PROVINCE OF AGUSAN.—The Province of Agusan has two subprovinces, Butuan and Bukidnon. Butuan is composed largely of low-lying forest land and swamps through which flow the Agusan River and its tributaries. Bukidnon is largely made up of high, grassy plains forested sparsely, if at all. It enjoys a temperate climate, and while wonderfully well watered is without navigable streams. Rainfall is heavy and quite uniformly distributed throughout the year in both subprovinces, neither of which suffered severely even during the recent unprecedented drought.

Four different men have held the post of governor during the year. Acting Governor John R. White was succeeded on September 28, 1911, by Frederick Lewis, promoted from the position of lieutenant-governor of Bukidnon.

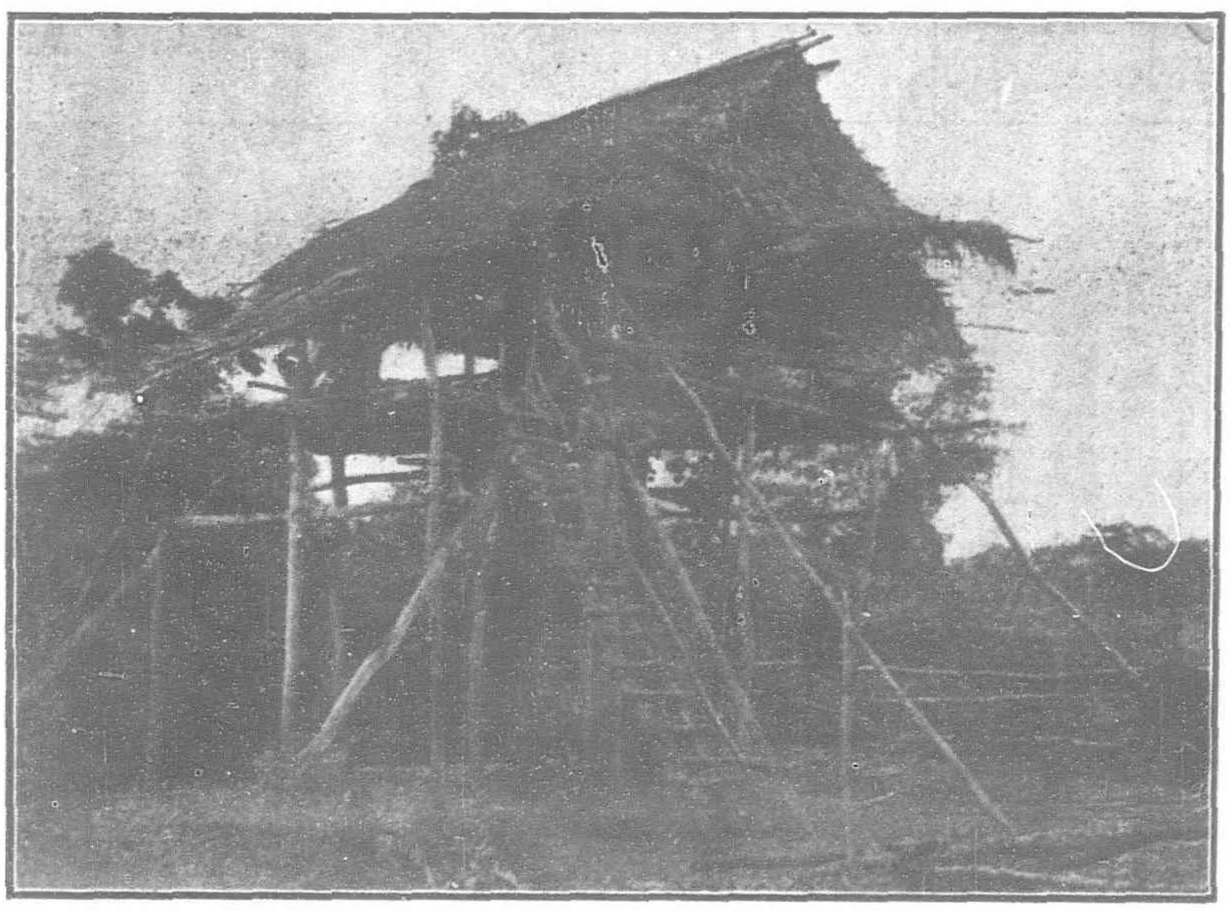


THE MALAYBALAY BAND

This really good band is composed entirely of Bukidnon boys and is the pride of the people of this tribe, not a member of which knew how to play any band instrument at the time it was organized

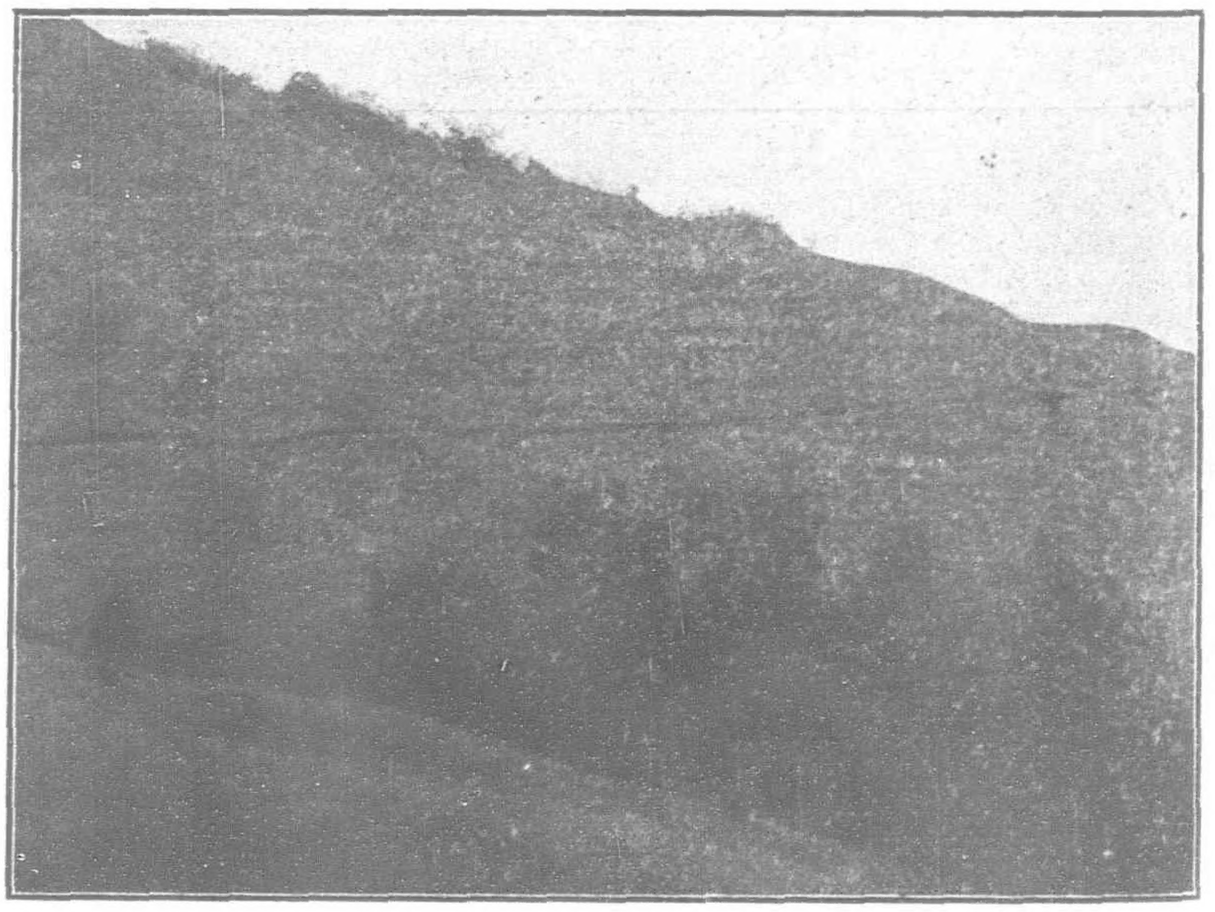
The capital of Agusan is at Butuan and the principal work of the provincial governor is in the hot, damp subprovince of the same name. Governor Lewis's health, which had been weakened by long-continued and arduous service in Bukidnon and was not fully restored, soon began to fail. For this reason he tendered his resignation and I reluctantly recommended its acceptance. He was immediately transferred to an important position in the Mountain Province, where favorable climatic conditions speedily restored him to vigorous health.

The vacant governorship was temporarily filled by the appointment of Captain G. O. Fort, Philippine Constabulary. Captain Fort was the ranking Constabulary officer in the province and was engaged in an active and effective campaign against Tauidi and Hulibayan, the murderers of Mr. Ickis, and the band of outlaws and assassins which they have gathered around them. I greatly regretted the necessity for interfering with this work by imposing on Captain Fort additional duties, but there seemed to be no other competent man immediately available for the place. As soon as possible it was regularly filled by the promotion of Governor Bryant of Nueva Vizcaya.



OLD STYLE BUKIDNON HOUSE

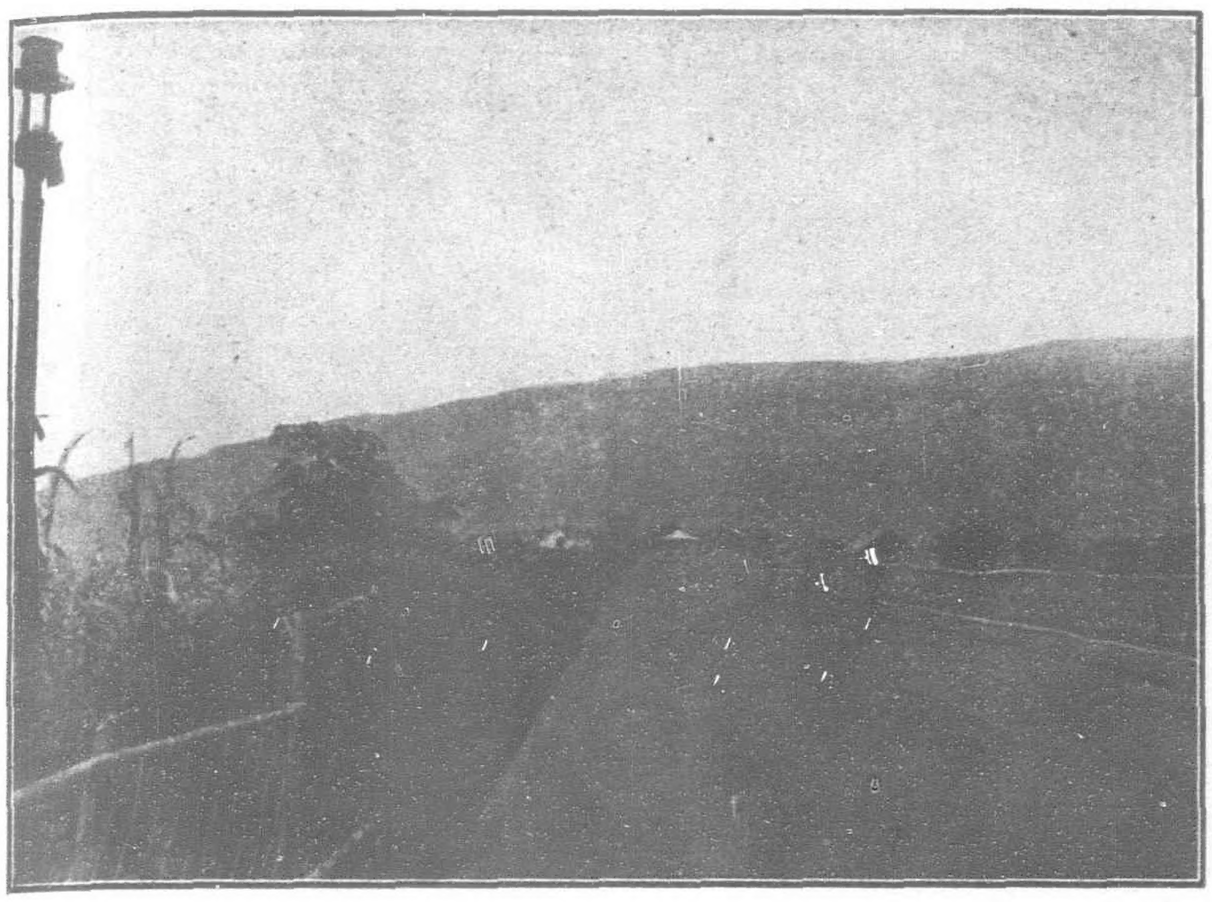
This is a typical house of the kind which is now being rapidly abandoned as the people move into the towns. In many cases they have been living in structures even more primitive than this.



OPENING UP COMMUNICATION IN BUKIDNON

General view of a stretch of typical low-grade trail for pack animals and mounted travelers.

This trail was surveyed and built by Leoncio, a Bukidnon man.

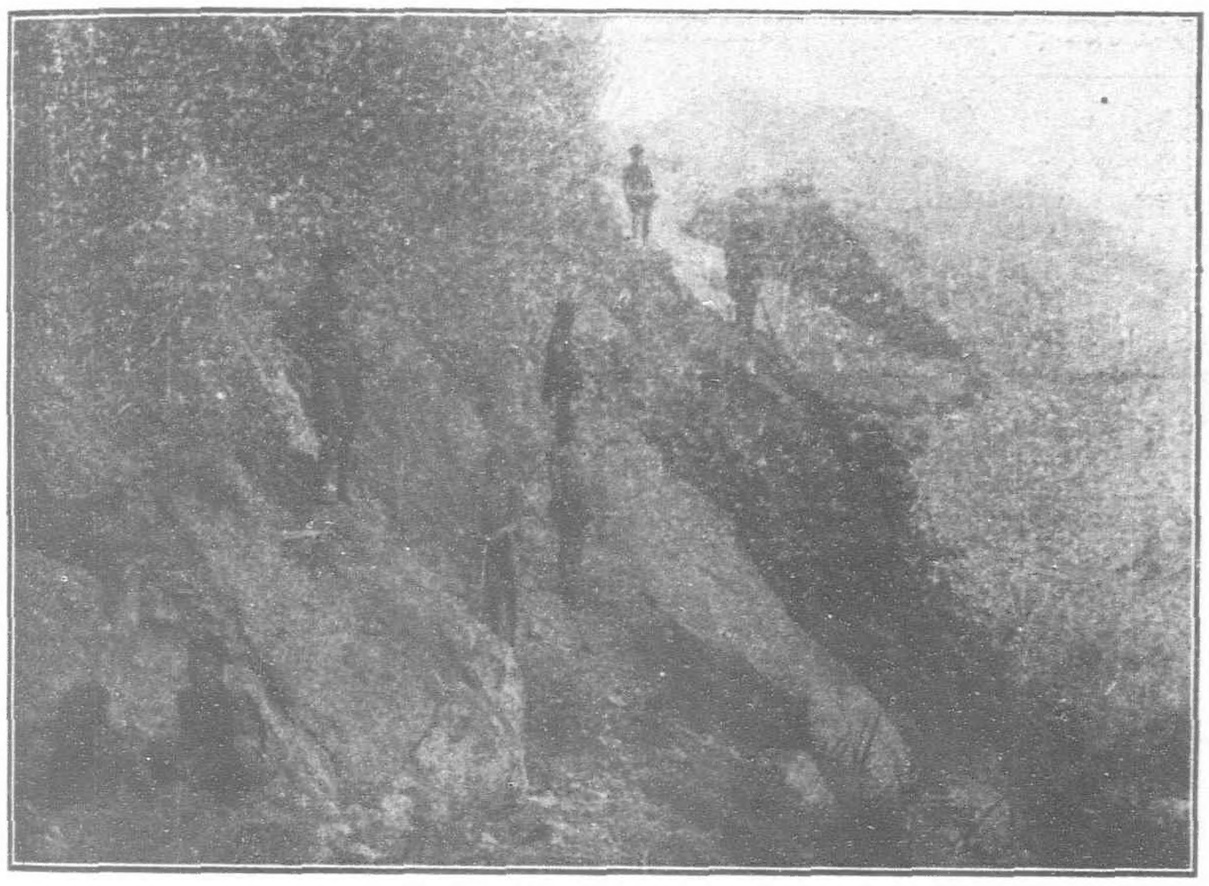


OPENING UP COMMUNICATION IN BUKIDNON

Typical unsurfaced road in the outskirts of a town. The chief problem connected with road construction in Bukidnon is to obtain surfacing material, the prairie soil being almost entirely free from stone.

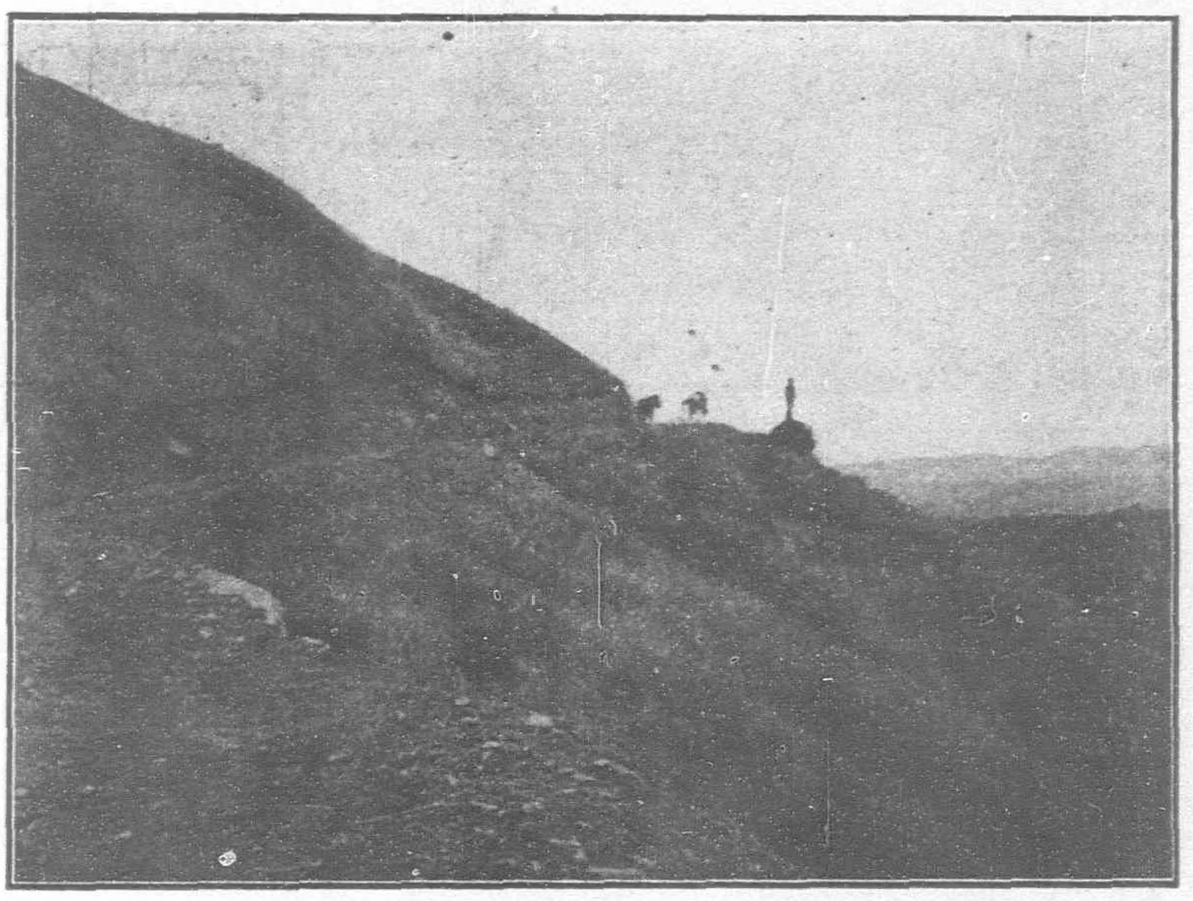
OPENING UP COMMUNICATION IN BUKIDNON

The construction of good roads and trails has rendered it possible to treble the load carried by pack animals.



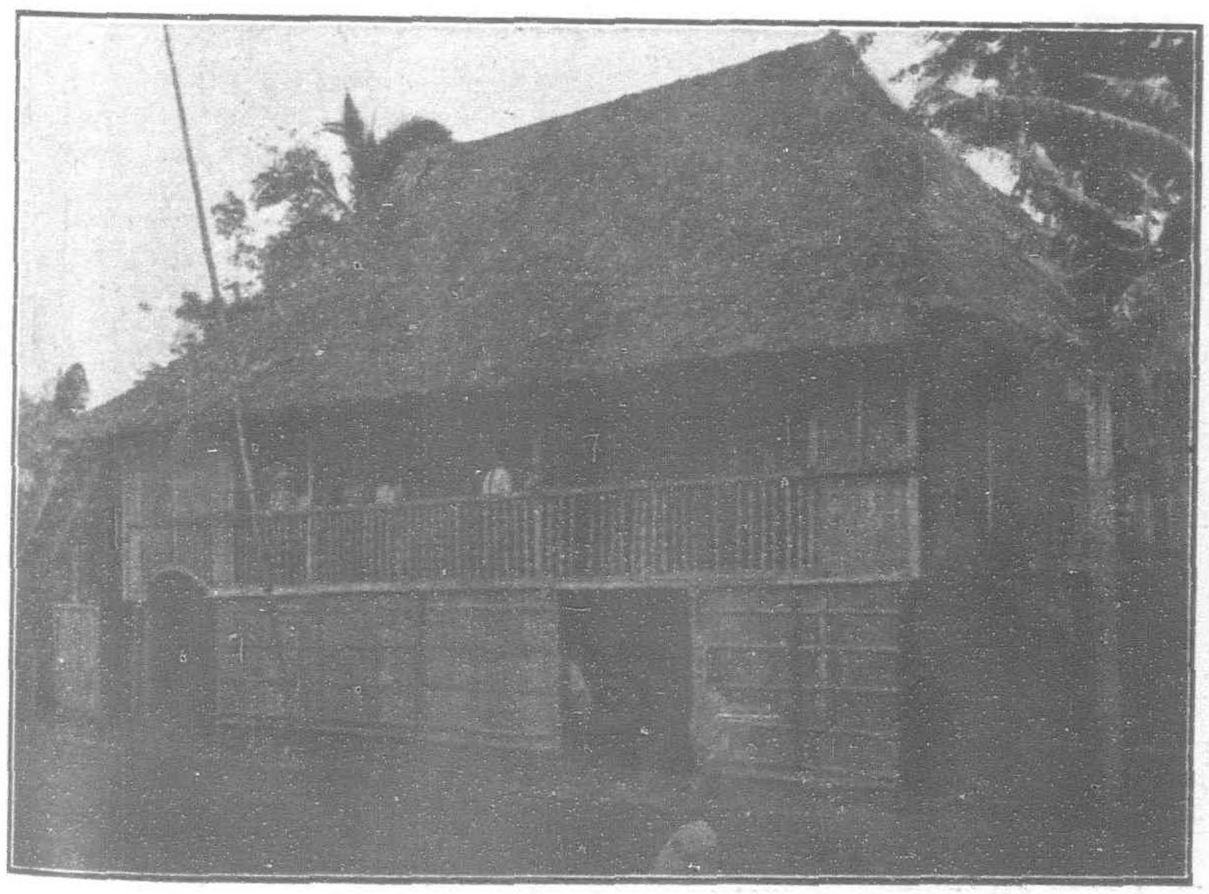
IFUGAOS BUILDING TRAIL

This photograph shows work just begun on a steep mountain side.



OPENING UP COMMUNICATION IN BUKIDNON

Typical low-grade trail for pack animal and mounted travelers. Near view to show type of construction.



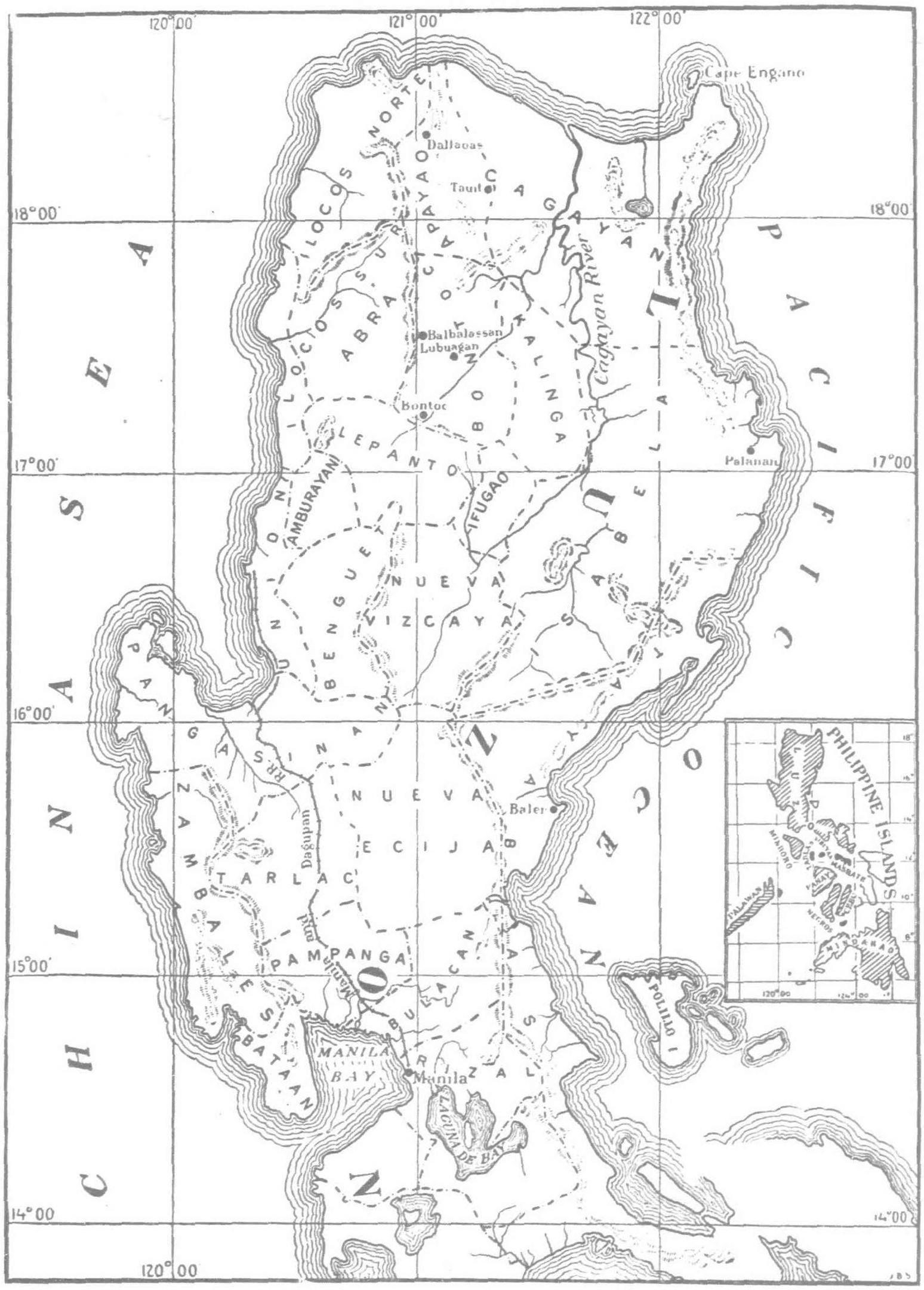
THE "PRESIDENCIA," OR MUNICIPAL BUILDING, OF A BUKIDNON TOWN

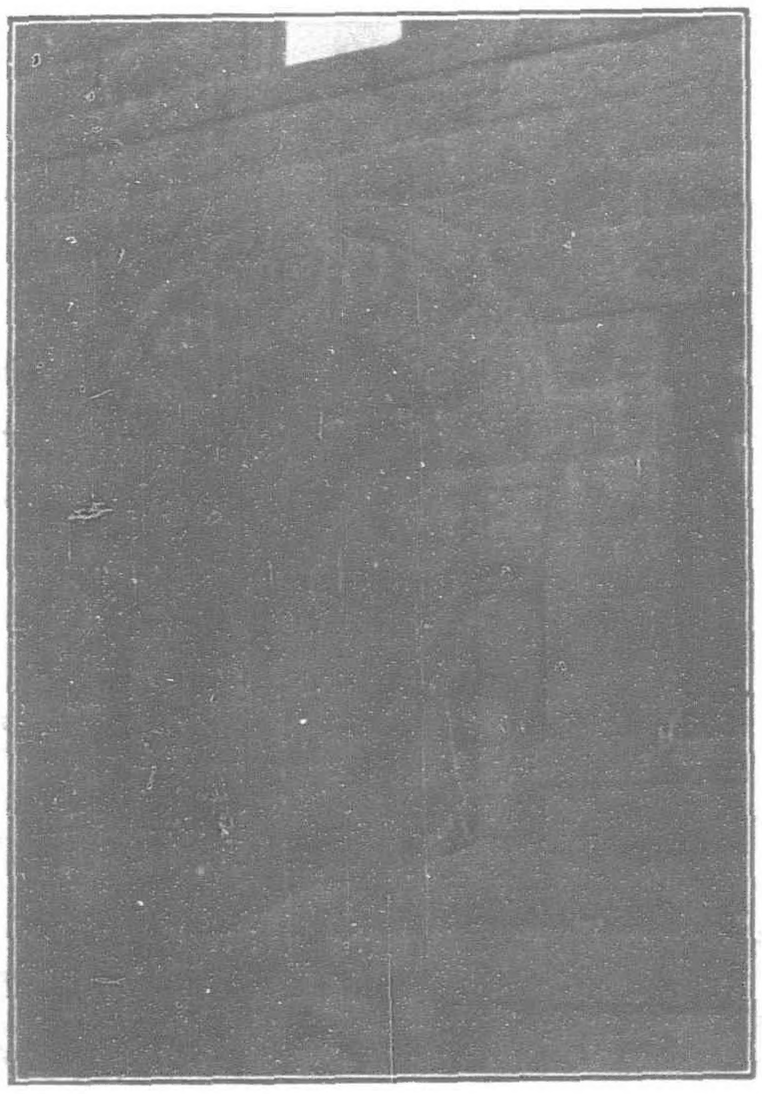
NEW ARRIVALS IN TOWN

These people, who have just come in from the hills, where they have abandoned a tree house, have been decked in the garb of civilization by kindly Bukidnon neighbours who are already old residents. They have built themselves a hut for temporary occupancy while constructing a house of the improved type which is already under way. They have partially fenced in and planted ground which they will soon begin to cultivate. The evolution of families from barbarism to civilization may be seen in the outskirts of every Bukidnon town.

OPENING UP COMMUNICATION IN BUKIDNON

This is one of the men who helped to do it. At the outset, the people of this tribe did not know what a good trail was like. Most of them had never seen a bridge nor a culvert. Leoncio, the Bukidnon man here shown, who is completely illiterate, is to-day surveying and building low-grade roads and trails and planning and constructing long bridges over rushing mountain rivers. He has learned all he knows from Lieutenant-Governors Lewis and Fortich. His compensation, with which he is well satisfied, is P.2 per day.





EXTRANCE TO STONE SCHOOL-HOUSE BUILT BY IFUGAO BOYS

The Ifugao Head over the door was cut by the American Instructor. All the other work was done by the boys.

Gratifying progress has been made at Butuan, which is now a beautiful town, and in many of the Manobo settlements on the Agusan River and its tributaries. The long-haired wild men from the hills continue to come in, form villages, and settle down to a peaceful and orderly life.

The mileage of navigable rivers is being steadily increased by the removal of obstructions. The upper Agusan was in 1905 cut off from the lower river by earthquakes which caused subsidence over an extensive area with resulting submersion of forests, creation of lakes and swamps, and complete obliteration of the old river banks. Two canals, navigable for good-sized launches, have now been opened through this region.

No trails other than mere footpaths have as yet been constructed in the subprovince of Butuan.

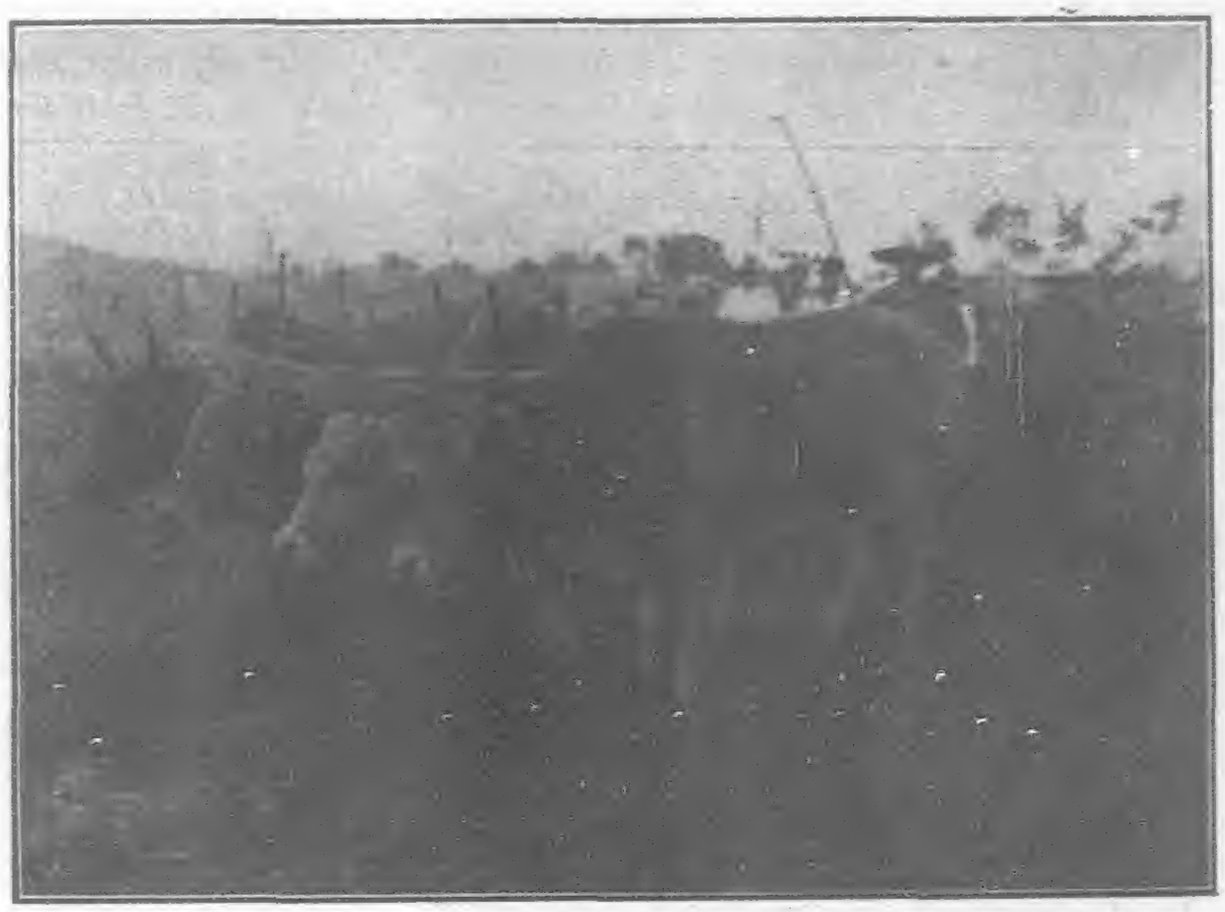
In the subprovince of Bukidnon the road and trail system has been extended and improved in a most gratifying manner. Nothing could be more satisfactory than the spirit of the Bukidnon towns, which vie with each other in the building of good roads, the construction of substantial bridges, and the erection of attractive public buildings. The population of the towns grows steadily as the wild men in the hills become convinced of the desirability of coming in and settling. The area under cultivation also steadily increases. The drought left this wonderful agricultural region practically untouched.

At the time we first obliged the people of Sumilao to clean up their yards we found a few old coffee trees badly affected by blight. We suggested that they plant coffee and thus get additional benefit from the work necessary in keeping the yards clean. The resulting good cultivation, unaided by any other means whatever, has so increased the vigor of the coffee bushes as to enable them to resist blight. Two-year old bushes are bearing heavily, while those planted a year earlier are actually breaking down under their burden of fruit. This one small town will ship 3,000 cavans of coffee during 1912.

One serious calamity has marred the otherwise uninterrupted progress of this subprovince. Tauidi's outlaws raided outlying territory, killing two influential, loyal chiefs and a score of men, women and children. Requests for Constabulary assistance remained long unanswered, as did an urgent demand for a limited number of firearms so that the people might protect themselves. I then appealed directly to the Governor-General, with the result that the needed firearms were promptly forwarded, and that a company of Philippine Scouts was hurried to the scene of disorder. This Scout Company rendered most satisfactory service in protecting the towns, restoring the confidence of the people, and dispersing the outlaws. Twenty-five Springfield carbines were effectively used by Bukidnon volunteers, who rendered very valuable service both independently and in co-operation with the Scouts. Absolute tranquillity has since prevailed. The outlaws were driven back into the Umayam District in Butuan, where an effective Constabulary force awaited them. As a result of the thorough

A SCENE IN MARAMAG

Maramag is one of the newest of the Bukidnon towns. A year ago the houses of many of its present inhabitants were located in tree tops in the neighbouring mountains. Now these same people are using a lawnmower to cut the grass on their town plaza, a bit of which may be seen at the right.



BUKIDNON MEN PLOWING WITH A GOVERNMENT OUTFIT

One of the powerful influences which has proved effective in persuading the Bukidnon people to settle in towns has been the furnishing of a number of disc plows, each drawn by four bullocks, with which the thick prairie sod can readily be broken. When this has once been done, the men can thereafter successfully cultivate the underlying soil with mattocks.

THE PRESIDENTE OF SILAE

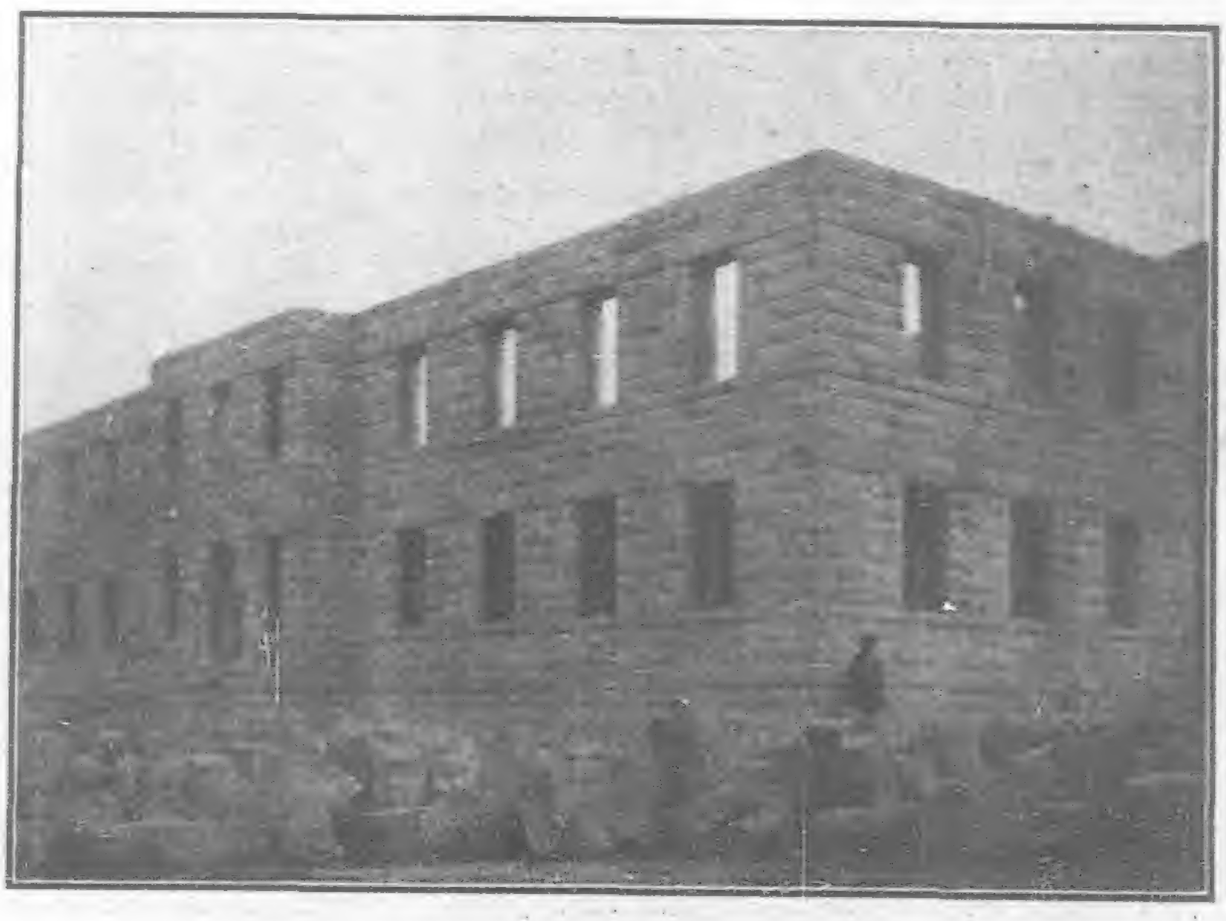
THE OLD AND THE NEW

THE PRESIDENTE OF IMPASUNGONG

The presidente of Silae is an old fighting chief, as is shown by his wearing the head-dress which may be donned only by highly successful murderers. He has recently come in from the mountains with his people and is building up a good town. In many towns, however, it has been found better to use young men for officials. The presidente of Impasungong, who has built up one of the best towns in the subprovince, was taken out of school and appointed to municipal office!

OPENING UP COMMUNICATION IN BUKIDNON

The main road from the coast at the point where it descends into the Mangima River canon.



STONE SCHOOL-HOUSE BUILT BY IFUGAO BOYS

This remarkable structure is being erected at Quiangan by Ifugao school boys who are doing all the work under the direction of an American teacher. They have split boulders, shaped the stone thus obtained, faced it, and laid it and are now doing the wood work.

shake-up which they then received, some 400 of them have sought and received permission to settle in Bukidnon, while a considerable additional number have followed a similar course in Butuan.

Lieutenant-Governor Fortich continues to have extraordinary success in influencing wild men to come in from the hills and establish model villages. At Maramag, one of the newest and most inaccesssible of these in the very heart of Mindanao, I found the Manobos cutting the grass on their town plaza with a lawnmower, and building excellent houses in

NEGRITO MEN WITH BOWS, ARROWS AND HEAD-AXES READY FOR THE TRAIL

lieu of the tree dwellings which they had so recently forsaken! The streets were well constructed and clean, and adequate sanitary facilities were present.

The loyalty of these people, when they realize that instead of being oppressed, or hunted like wild beasts, they are being protected and helped, is really touching.

The people of the Bukidnon towns, far from having experienced hunger, had food to sell. They are now raising corn most successfully. The stalks stand 10 to 15 feet high and produce one to three large ears each. Both Filipino and imported Indian cattle are doing splendidly. Bukidnon is capable of producing draft animals and beef cattle sufficient for the entire Archipelago.

CONDITIONS IN BUKIDNON.—When the territory inhabited by the Bukidnons was cut off from Misamis, these people were suffering more severely at the hands of their Filipino neighbors than were the people of any other non-Christian tribe in the Philippines. They were, in many instances, robbed of their coffee, cacao, hemp, and gutta-percha, or were compelled to sell these products at absurdly inadequate prices. No provincial governor had ever visited their country. Their settlements were practically without government. There was, therefore, no check upon the rapacity of those who plundered them. Many members of the tribe who had been baptized and had adopted a civilized life were taking to the hills. Such villages as existed were filthy and insanitary. No food crops were grown in their vicinity. Indeed, the people did not believe that the rich prairie soil surrounding their villages would produce crops. There was not a bridge or a culvert in the subprovince, and travel was often rendered impossible by streams in flood. All agricultural products were necessarily transported on pack animals over excessively bad trails. There was not a mile of road in the subprovince.

Now, the Bukidnons have been taught the value of their agricultural products and for the most part insist on receiving it when they sell. They are governing their own settlements and doing it well. Their houses are neat and well-kept: their yards fenced, clean and usually planted in useful crops. The streets and plazas of their villages are clean and well drained. Each important village has its well attended school. Grassy prairie lands have been converted into rich cultivated fields. Excellent low-grade trails connect the more important villages, between which telephonic communication has also been established. A highway passable for automobiles is being pushed toward the subprovincial capital from the coast. On this route alone there are more than one hundred bridges and culverts, and travel is not interrupted by the heaviest floods. The people are prosperous, contented and more than friendly, yet much remains to be done.

Along the Cagayan River and elsewhere near the Misamis boundary they are still often ill-treated by their Filipino neighbors. Unscrupulous municipal officials take advantage of their ignorance and timidity to compel them to pay *in Misamis* taxes which they do not owe. By one expedient or another they are deprived of their cultivated lands. The following instance is typical of what only too often occurs.

OPENING UP COMMUNICATION IN BUKIDNON

A typical bridge built entirely by Bukidnon men.

A long-haired man from the forest who, by hard work had established a coffee and hemp plantation, made a trip to the coast to sell his products. Ignorant of the language there spoken, he fell into the hands of an unscrupulous trader who told him that he needed a business partner in town who would sell the products of his plantation in the hills, thus saving him the expense and trouble of long journeys to the coast. Pleased with the idea, the wild man signed a document drawn up by his rascally new acquaintance. It purported to be a partnership agreement. It was in reality a bill of sale for his place!

The wild man, unassisted, is absolutely helpless in the courts. It will, I fear, be necessary to employ the services of a competent lawyer to protect these "heathen" from their "Christian" neighbors.

DEVELOPING THE PHILIPPINES

The *Manila Daily Bulletin* reports that a company has been organized at Cheyenne, Wyoming, with a capital of P.150,000 to aid in the development of Philippine industries.

Some of the leading capitalists of the state of Wyoming are interested in the project and stand ready to increase the present capital of the company, upon favorable report by their representatives who are visiting the Philippines to look over the conditions of the hemp, copra and sugar industries, make report to their principals and at the same time take cognizance of other neglected industries throughout the archipelago.

Cook's Tourist Agency has opened a branch in Manila. This is an indication of the increasing attention that is being given to the Philippines and the fact that Manila and the Philippines in general will henceforward be included in the itineraries of the large tourist parties conducted by Cook's is a matter for gratification. The good work of advertising the potentialities of the Philippines will be extensively developed as a result of the establishment of Cook's branch.

The American Trading Company has decided to go into the machinery business on a large scale in the Philippines. The machinery department of the company's business will be under the supervision of Messrs. Stuart S. Harvey, R. Naess and J. J. Naugle.

THE FAR EASTERN REVIEW

COMMERCE :-: ENGINEERING :-: FINANCE

GEO. BRONSON REA, M.E.
PUBLISHER

W. H. DONALD, Editor
5 JINKEE ROAD,
SHANGHAI,
CHINA

A Monthly Review of Far Eastern Trade, Finance and Engineering, Dedicated to the Industrial Development and Advancement of Trade in the Philippines and Far Eastern Countries

MANILA OFFICE: PLAZA GOITI,
Wm. CROZIER, Manager

UNITED STATES
J. ROLAND KAY CO.
Teutonic Building, Chicago

GREAT BRITAIN:
SOLE ADVERTISING AGENTS
WALTER JUDD, LTD.
5 Queen Victoria Street, London, E.C.

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JERUSALEMER STR. 46-49
Berlin, S. W. 19

SUBSCRIPTION RATES: Philippines, United States, Canada, and Mexico, $2.50 U. S. C. per year. To all other countries in the Postal Union, Mex. $7.00 per year, postage $2 Mex. extra. Single copies 25 cents, U. S. C. or 75 cents, Mex.

ADVERTISING RATES will be mailed on application.

ENTERED AT THE U. S. POSTAL AGENCY, SHANGHAI, CHINA, AS SECOND CLASS MATTER

SHANGHAI AND MANILA, FEBRUARY, 1913

CONTENTS

DEVELOPING THE PHILIPPINES

In nearly every issue of the FAR EASTERN REVIEW, appear reports of well-capitalized organisations having been formed in the United States for the purpose of developing one or several of the industries of the Philippines. This is a most significant mark of progress. It has often been pointed out that there is no surer sign of belief in a country's future than the investment therein of foreign capital. For reasons that are sufficiently well-known, the investment of American capital in the Philippines has been retarded. The FAR EASTERN REVIEW feels a little natural gratification in being able to record that the capital, which can be so profitably employed in the Archipelago, is now finding its way thither. For years this paper, with its contemporaries, in the Philippines, has been insisting upon the immense value of the Islands as a field for legitimate investment, and it would now appear that the spade-work of the past is proving productive.

In this issue, the reader will find additional evidence of the successful efforts that are being made by the Insular Government to secure the moral and material well-being of the Philippines and the Filipinos. The article on the Wild Tribes of the Philippines is a record of work from which wonderful moral results are being obtained. But, simultaneously, work in the direction of improving communications, dwellings and so forth is being steadily carried on. Soon it may be hoped the people at home will awake to a still more vivid realization of the potentialities of the Philippines, and that a supply of capital will flow into the country sufficient fully to develope its immense resources.

We have already drawn attention to the establishment of the American-Philippine Company of which Mr. Edward H. Fallows of New York is the President. The formation of this concern which has millions of dollars behind it, and the fact that the Mr. Fallows and a large number of well-known financial men considered that it was worth while personally to visit the Islands, show that the propaganda and publicity work of the past have borne good fruit. The visits of men such as these are of infinite value to the Philippines. The more that is known of the immense possibilities of the Islands, and the more widely that knowledge is dessiminated, the better. There is no "gold brick" business about encouraging capitalists to invest their money in the Philippines. It is only the absence of money that has prevented its progress, great as it has been, from being greater. Every dollar invested in legitimate enterprises in the Islands has as good a chance of fulfilling the proper function of a dollar—of growing and multiplying—as in any other part of the world. And if we say a better chance we think that we will be borne out by those who know the Philippines best.

CHINA'S NAVY

A serious effort is to be made to put China in possession of an efficient navy. Of course, during the past year, any movement in this direction has been blocked by the absence of money, the Provisional Government not even having possession of sufficient funds for its ordinary administrative expenditure. It has been recognised, however, that China, in view of her immense coast line and internal waterways, must have an adequate naval force. As a result of a conference between the Minister of the Navy, Liu Kuan-yung, the Vice-Minister Tang, the Senior Naval Advisers and the Departmental Chiefs, certain measures have been decided upon with a view of improving the Naval Administration. These consist of the following:—

(1) A naval fund campaign to be started in order to secure contributions from the people in the Provinces and in the Southern Islands.

(2) To enlarge the Navy, to secure really efficient officers and men and to weed out naval men of the old type.

(3) To reorganize the Fukien Navy Dock, to make it the central dock for the repair of all naval vessels.

(4) To establish a big central manufactory for machinery.

(5) To increase the number of naval academies and colleges.

(6) To open up good naval harbors and to secure a good naval base.

These recommendations have to go to the National Council for approval. It seems a pity that it should be necessary to trust to voluntary contributions for the maintenance of China's Naval Force, and it is to be hoped that the reorganization of the finances will render dependence upon these outside contributions unnecessary in the near future. The proposal to enlarge the navy may be regarded with suspicion by those who fear lest China should become one of the military nations, but regarded without prejudice, it must be admitted that the present pretence at a navy is not in keeping with the role that China may fairly aspire to play in the Far East.

The other recommendations deserve support and show that the Ministry of the Navy has a clear realization of the necessities. It may be some time before China can hope to have a navy of any

consideration, but that need not prevent her laying the foundation at the earliest possible moment.

U. S. RAILWAY RECEIPTS FOR OCTOBER

The receipts and the expenses of the steam railways for the month of October, 1912, are greater than for any other month in their history. Net operating revenue, which is the gross income before anything has been taken out for taxes and rentals, interest on bonds, appropriations for betterments or dividends, averaged $15.71 per mile of line per day, which contrasts with $13.74 for October, 1911, an increase of $1.97. This is an increase per mile of line for the month of $61.13, or 14.4 per cent.

The monthly summary of the Bureau of Railway Economics, compiled from the reports of railways to the Interstate Commerce Commission, covers for October 220,636 miles of line, or about 90 per cent. of all of the steam railway mileage of the United States. The aggregate net operating revenue for this mileage was $107,440,518, which is greater by $14,870,125 than that for October, 1911. The increases were due in greatest proportion to the freight traffic, which is always greater in October than in any other month of the year.

CHINA AND THE LOAN

THE LONG PROTRACTED NEGOTIATIONS

We have refrained from writing much in regard to the Six Power Loan, mainly owing to the clouds of uncertainty which over-hung those hapless negotiations. Just before the close of the old Chinese year, it was confidently expected that the new year would see the Loan Agreement signed and the Chinese Government relieved from its financial embarrassments. Had it rested solely with the bankers, there is reason to believe that there would have been no further difficulty. But the diplomats marched in. France took exception to the appointment of Herr Rump, as foreign head of the Salt Gabelle and from that time on, the diplomats took the matter out of the hands of the bankers. A suggestion was made that there should be two advisers for each post, but this was rejected, as was the proposition that there should be a Briton at the head of the Salt Gabelle.

Originally the idea was that the heads of the departments which came within the scope of the Loan Agreement should be chosen absolutely irrespective of their nationality. The French objection raised at the last moment has introduced a political element. It will be generally regarded as deplorable that the fate of a nation like China should depend upon the settlement of the petty jealousies of the Powers which profess to be friendly. Sympathy must be extended to China in this connection. She had agreed to all demands and was ready, with the bankers, to sign the Agreement when the diplomats stepped in and prevented her from getting the money of which she was so badly in need.

A great deal has been written purporting to give the substance of the Big Loan Agreement. It would seem desirable therefore at this stage to give an accurate summary of the Agreement.

LIU KUAN-YUNG

MINISTER FOR THE NAVY

The amount to be lent was £25,000,000 sterling, and the loan was to be devoted to general reorganization and to administrative purposes. China was to issue Gold bonds for this amount.

The bankers were authorized to issue either in one amount or in series at their option, gold bonds bearing interest at the rate of 5½% for the full amount.

The loan was to be known as "the Chinese Government five and one-half per cent. reorganization Gold Loan."

The loan was to be used for the following purposes :—

(1) Payment of liabilities due by the Chinese Government.

(2) Redemption in full of outstanding Provincial loans.

(3) Provisions for payment at due date of liabilities of the Chinese Government as they matured, including foreign claims for damage and losses during the Revolution.

(4) Disbandment of troops.

(5) Current expenses of administration.

(6) Reorganization of the Salt Administration.

(7) Other administrative purposes mutually agreed upon.

The loan was to be a direct liability and obligation of the Chinese Government which was to pledge its good faith and credit for the proper performance of all engagements.

The loan and any advances connected therewith was to be secured upon the revenues of the Salt Administration subject to previous loans and obligations and it was to have priority over all future loans on these revenues until redeemed. It was provided that no other loans, which would lessen or impair its security over the Salt Administration revenue, should be created, and also that if at any future time the Maritime Customs revenue should exceed the amount required to meet existing obligations, that such surplus should be applied in the first instance to the service of the reorganization loan, the Salt revenue surplus being thus made available for the general purposes of the Government.

The Government undertook to take immediate steps to reorganize with foreign assistance, the system of collecting the Salt revenues in the following manner :—

A Central Salt Administration was to be established at Peking under the control of the Minister of Finance. This Central Administration was to consist of a chief inspectorate of Salt revenues under a Chinese chief inspector and a foreign associate chief inspector who would constitute the chief authority for superintending the issue of licenses and the compilation of reports and returns of revenue. There was to be a branch-office of the chief inspectorate, in each salt-producing district under one Chinese and one foreign district inspector, who were to be jointly responsible for the collection and deposit of the Salt revenues. Periodical reports of all receipts and disbursements were to be issued by the chief inspectorate and the release of salt against payment of dues in any district could be made only under the joint signatures of the Chinese and foreign district inspectors. These revenues were to be lodged in a "Chinese Government salt

revenue account" with banks approved by the banks. This account could only be drawn upon under the joint signatures of the chief inspectors.

If the interest and principal should be in default at due date after a reasonable period of grace, the organization was to be incorporated with the Maritime Customs.

With the reorganization of the salt gabelle was proceeding, the provinces of Chihli, Shantung, Honan and Kiangsu were to pay monthly into the banks the funds necessary to meet the service of the loan. These payments by the provinces were secured as a first charge upon Central Government taxes of these provinces and the Central Government was to supply evidence that the provincial authorities officially recognized the obligation. After the revenue collection of the Salt Administration became sufficient to cover the service of the loans, the monthly contributions from the provinces were to be suspended. When the revenues of the Salt Administration had been maintained for three successive years at a sufficient figure, the provincial liabilities were to be finally released.

The term of the loan was to be fifty years and repayments were to commence with the sixteenth year. After the lapse of fifteen years, the Chinese Government could give notice to redeem or convert the outstanding amount.

The price of the loan was to be the price of the issue to the public less a deduction by the banks of 6% of the nominal value of the bonds. The issue price in London was to be not less than 96½% securing to China a net price of not less than 90½ for the entire loan.

The Chinese Government undertook to put at once into effective operation the Accounts and Audit department. The Chinese and foreign Directors of the Bureau of National Loans were jointly to sign all requisitions for loan funds.

The usual provision for postponing the issue of the loan in the event of any political or financial crisis was included.

In most other respects the lines of previous Loan Agreements were followed.

TRADE AND RESOURCES OF KWANGSI PROVINCE

[FROM THE REPORT OF CONSUL GENERAL LEO A. BERGHOLZ, CANTON, CHINA]

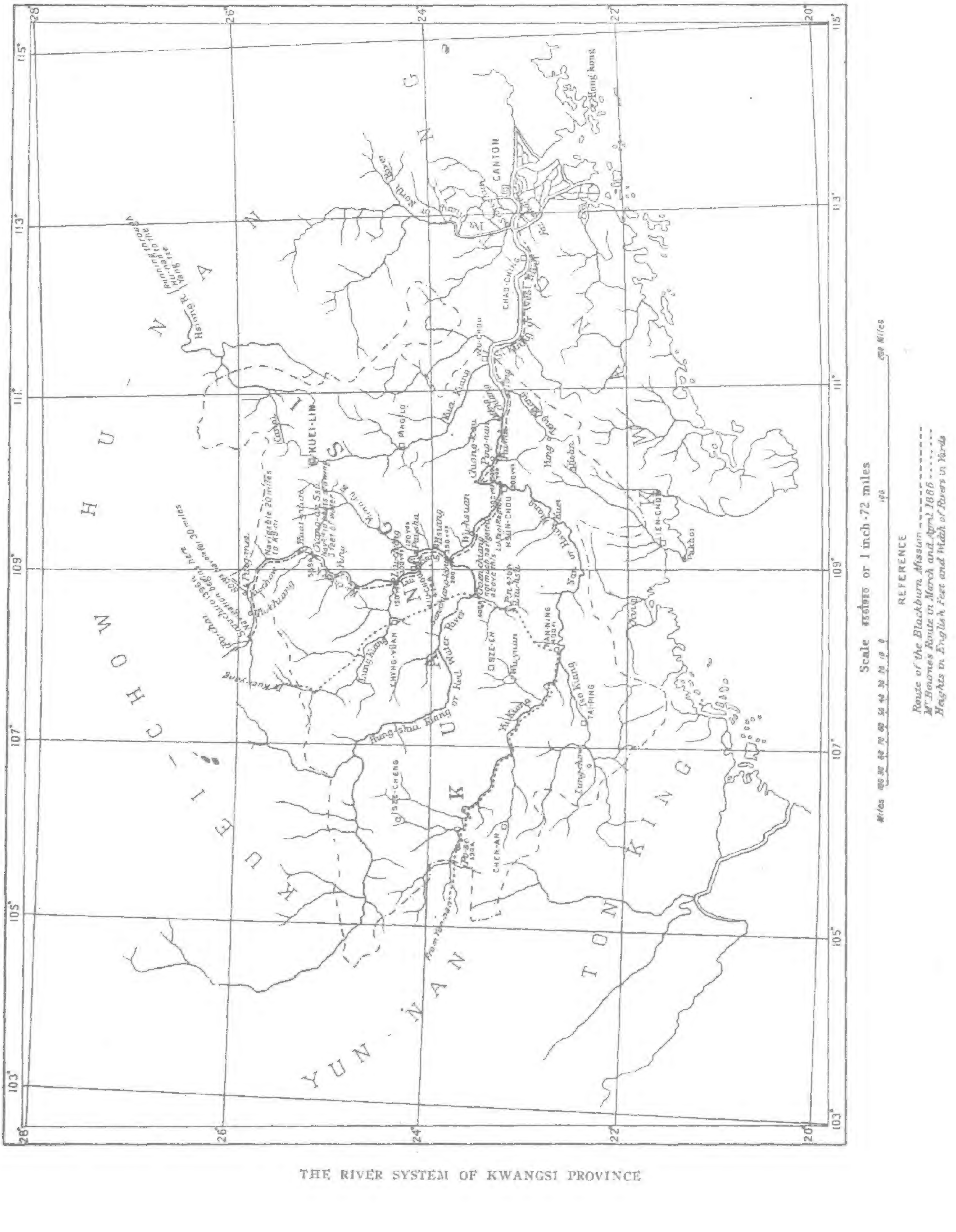
VIEW FROM THE NORTH GATE OF KWEILIN

The Province of Kwangsi, in western interior China, has an area of 77,220 square miles and a population of 5,140,000. Its largest city is the provincial capital, Kweilin-fu, on the Kweikiang, having a population of some 80,000. The chief trade center is Wuchow, a prefectural city of 65,000 inhabitants, on the Sikiang, near the Kwangtung border. Other important commercial and industrial cities are Nanning-fu, Liuchow-fu, Lungchow-t'ing, and Posch-t'ing. Owing to the mountainous character of the Province, little use has been made of its rivers (the Sikiang or West River and its tributaries, the Nankiang, the Liukiang, and the Kweikiang) for irrigation purposes.

Mining, Agriculture, and Manufacturing

The isolated position of Kwangsi and the natural difficulties of travel within its borders have, to a large extent, thrown a veil over its resources. The Province is credited with deposits of gold, silver, and antimony, but its coal mines are the only known factors in its mineral wealth. A superior grade of coal has been mined for years by native methods and in 1909 a few shipments of it appeared at Canton. The forests of maple, ebony, teak, and other timber have been better worked and supply one of the chief sources of income to the people.

Agriculture is profitably carried on in the valleys and on the lowlands of the



THE RIVER SYSTEM OF KWANGSI PROVINCE

southern and eastern districts. The principal natural products are aniseed camphor, rice, beans, indigo, sugar, potatoes, olives, groundnuts, cotton, bamboo, and other timber, false gambier, cassia, corn, fruit, and silk. Opium was never widely grown in the Province. Poultry, pigs, and cattle are extensively raised for export.

Kwangsi has no important manufacturing industry. The weaving of silk, once carried on to some extent, has dwindled to insignificance. At the present time the manufacture of firecrackers and fireworks, joss sticks, iron pans, pottery, the tanning of leather, and the preparation of finished products from the produce of the soil and forests constitute, in general, the range of its industries.

The industrially backward condition of the people of the Province compels them to depend upon outside sources for a large number of important articles, among which may be mentioned cotton piece goods and cotton yarn, woolen goods, cotton and woolen mixtures, silk piece goods, raw cotton, metals, coal, cigarettes, aniline dyes, enameled ware, flour, ginseng, window glass, hosiery, lamps and lamp ware, matches, condensed milk, needles, kerosene, india rubber boots and shoes, soap, umbrellas, umbrella frames and parts, alum, bêche-de-mer, straw mats, medicines, and a certain amount of timber.

Foreign Trade of the Three Open Ports

Exclusive of treasure, the total foreign 1909 trade of the three open ports of Kwangsi that passed through the Imperial Maritime Customs is shown in the following table:

Ports.	Imports.	Exports.	Total.
Lungchow.....	$120,653	$77,425	$198,078
Nanning	1,461,665	1,152,733	2,614,398
Wuchow	5,949,504	2,269,253	8,218,757
Total	7,531,822	3,499,411	11,031,233

The values given in this table are not those of exports originating solely in Kwangsi nor of imports consumed entirely in the Province, but include the value of a large amount of native goods produced in neigbouring territory, but exported through the ports of Kwangsi, and of a large amount of foreign goods imported for distribution in Kwangtung, Kweichow, Hunan, and Yunnan. The value of the foreign imports sent under transit pass to these Provinces in 1909 was as follows: Kweichow, $2,411,061; Yunnan, $235,704; Kwangtung, $123,872; Hunan, $909; total, $1,771,546.

Lungchow's Trade—Motor Boats for River Use

The port of Lungchow, or Lungchow-fu, the smallest of the three ports of Kwangsi open to international trade, is situated on the Tsokiang, in the extreme southwestern corner of the Province, and has a population of 12,000. It was opened to foreign trade some 20 years ago and, for a time, a growing importance was predicted for it. It has failed, however, in a large measures, to justify this prediction, mainly because of the abandonment of the project to connect it by rail with Tonkin and Nanning-fu. The foreign trade of Lungchow amounted in 1909 to only $198,078, and consisted entirely of importations from and exportations to Tonkin, through Langson, Thatke, and Caobang, the three places in the French colony having direct trade relations with the port. Trade is practically controlled by Chinese merchants.

The district in which Lungchow is situated is well watered and comparatively productive. Corn and rice are grown in all parts of it, and sugar, potatoes, beans, indigo, groundnuts, aniseed, and camphor less generally throughout. There are no important mines and no large manufacturing industries either in the city itself or in its neighbourhood.

The greatest drawback to the trade of the district has been, in the past, and still is, the imperfect means of communication which it possesses. It has at its service, for direct trade with Nanning, Wuchow, and Kwangtung, only the Tsokiang; and for direct trade with Tonkin, only the two small streams which combine to create the Tsokiang. For the rest, it has to depend upon porters, of whom, in 1909, there were 2,674 engaged in the frontier trade. Several smaller affluents of the Tsokiang flow north and south through the district and are of some assistance to its distributing trade. The navigation of the Tsokiang to Lungchow is possible only for shallow-draft vessels, and by these for only a part of the year. The institution of a motor-boat service to Nanning has been considered, and the project seems to promise to become an actuality. Except during the dead low water of winter an all-year service for shallow-draft steamers or launches could be easily maintained. Practically nothing, however, has been done to start such a service and the trade of Lungchow remains stagnant. The opening of Nanning to foreign trade in 1907 was expected to stimulate the commerce of its sister mart, but, if it has affected Lungchow at all, it has done so only adversely.

Prosposed Motor-Car Service—Lungchow's Exports Growing

That trade is not an impossibility without railway service is shown by the fact that the value of the annual imports and exports at Lungchow has nearly trebled since 1900, but, at the same time, the immense service which would be rendered by a railway to the trade not only of Lungchow but of all the Province is patent. A recent suggestion which is not impracticable is the institution of a motor-car service between Lungchow and Nan Kwan, the present northern terminus of the railway from Hanoi. The commencement of this service would be contingent upon the successful operation of a line of launches between Lungchow and Nanning, and would, it is claimed, constitute, next to the extension of the railway to Lungchow, the best solution of the difficulties that hamper and restrict the trade of the port. The proposed service would handle passengers, light freight, and parcels, while the heavier and more bulky cargo would continue to come and go by water. The present existing roads would require only moderate improvement to make them serviceable for motor cars. It is doubtful, however, whether this suggestion will receive any consideration from the people of Lungchow.

Analysis of the trade of Lungchow with foreign countries for the five years from 1905 to 1909 shows that there has been no significant increase in the import trade (value $120,653 in 1909), but that the increase in the export trade (value, $77,425 in 1909) has apparently been substantial. The trade, both export and import, of this port is practically all with Tonkin. The most important single article imported is Tonkinese cotton yarn, which is creating an excellent market for itself. It appeared in Lungchow for the first time in 1903, with an importation of 23,867 pounds, and increased to 165,733 pounds in 1909. Its superior quality and proximity to the market places it beyond competition of Indian and Japanese yarns. Foreign umbrellas, now a staple article of import into Yunnan, found their way into Lungchow for the first time in 1910.

Nanning's Lack of Transportation Facilities

The port of Nanning, or Nanning-fu, opened to foreign trade in 1907, is situated on the left bank of the Nankiang, at the junction of the Yukiang and Tsokiang, 368 miles above Wuchow and 250 miles below Lungchow. It is a prefectural city of 25,000 inhabitants and ranks as the second largest of the three open ports of Kwangsi Province.

The city lies in the center of a wide and fertile plain in a sharp bend of the river, and is accessible by the ordinary river launch only during the very irregular times of high water.

The major part of the population lives in suburbs outside the city walls, and nearly all business is transacted there. A foreign settlement with all the conveniences that a foreigner in this country can reasonably expect has been laid out below the wall. Land here is held on 30-year leases, and the management of settlement affairs is in the hands of a special board of city officers.

A serious obstruction to the speedy development of the trade of Nanning is the difficulty of river navigation. In addition to 22 rapids the river bed between Nanning and Wuchow is strewn with countless rocks. Therefore, unless extensive river improvements are carried out, the terminus of all heavy steam traffic must remain at Wuchow. Two railway lines into Nanning have been proposed, but nothing is now heard of them.

A flying survey of the waterway between Nanning and Wuchow was made by foreign surveyors in the employ of the Imperial Maritime Customs, but nothing definite has followed. A regular but limited launch service has been maintained with Wuchow since 1907. The motor boats employed on this line average 45 tons, with a draft of 2 feet laden and 1 foot 7 inches in ballast. They make from 8 to 10 knots an hour and take from 3½ to 4½ days to make the trip up. The downward trip takes from 1½ to 3 days, depending on the state of the water.

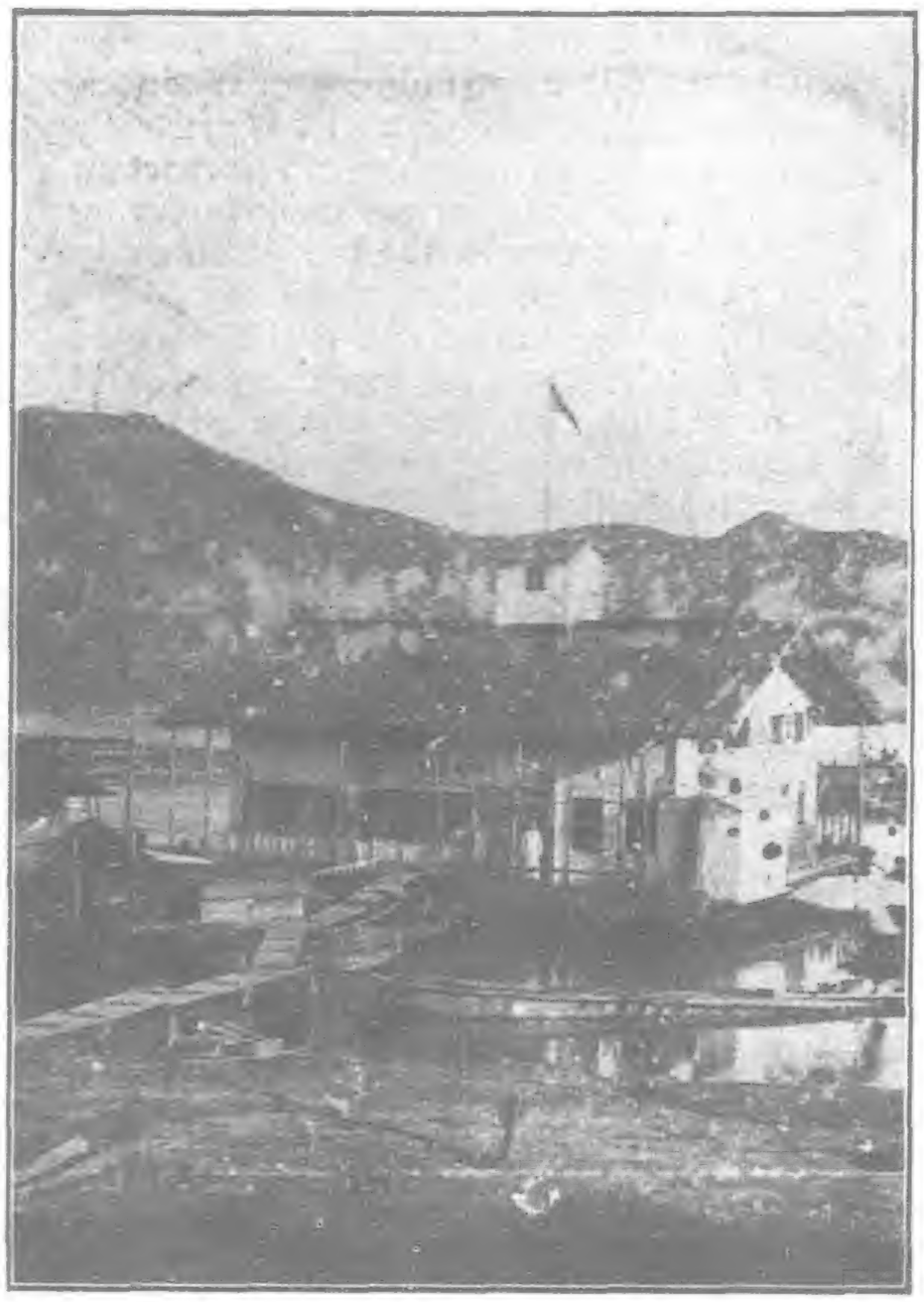
Nanning's Industries—Progress Along Western Lines

The industries of Nanning are limited and of no great importance, the principal product being firecrackers, the average annual output of which is about $240,000. The trade of the city is entirely with other Chinese ports, principally Wuchow, and the port has no direct dealings with foreign countries. The establishment of foreign agencies in Nanning to carry on a direct trade with the Chinese merchants of the district would eliminate the Wuchow, Canton, and Hongkong middlemen and probably effect a decided increase in the trade of the port.

Nearly all business transactions here are carried on by the check system, owing to the scarcity of ready money. These checks pass from hand to hand in local transactions with repeated indorsements. Interest rates formerly went as high as 16 per cent per month, but are now legally limited to 6 per cent per month. What little actual currency there is is made up of Hongkong and Canton 10 and 20 cent (Mexican) pieces, Hupeh small coins, French piastres de commerce, and a sprinkling of the dollars commonly seen in South China. The unit of trade calculation is the local (Yung-p'ing) tael.

Many signs of changes on Western lines are already apparent in Nanning. Policemen in uniform and with a short baton at their sides are stationed on the streets and at all the gates. A fire brigade with serviceable engines has been established, and street lighting has been started.

Though all these institutions are still incomplete, from a foreigner's point of view, they mark a start and show that the necessity of introducing foreign methods has been recognized. In educational matters reforms are also noticeable. Five minor, one middle, and one normal school have been opened, the first mentioned being established in temples, while for the last mentioned a building in foreign style has been erected; but they all find difficulty in securing competent teachers. Besides these, a foreign school was opened at Nanning in 1902 by the French Frères Maristes, and in 1909 a new school, with an initial attendance of 450, was opened by the superintendent of customs and a public school for girls established by the gentry, with the support of the local officials.



STEAMER STAGE AT WUCHOW

Nanning's Trade in Healthy Condition

In the last few years the great decrease in the native opium traffic has seriously affected the trade of the port. Formerly Nanning was a center of barter for Yunnan and Kweichow opium and foreign goods. As many as 8,000 chests of opium are said to have formerly thus changed hands at Nanning annually. The traffic in opium was first diverted, to a large extent, from Nanning to other routes by an increase in the taxes levied on the commodity in Kwangsi, and then further lessened by the virtual suppression of poppy culture in the districts where opium formerly was grown.

The figures for 1908, 1909, and the first half of 1910, however, show the trade of the port to be in a healthy condition, with evident signs of growth. These years were for Nanning, as for the greater part of Kwangsi Province, ones of comparative prosperity.

The market for cotton piece goods shows a steadily growing demand, and it is possible that when the figures for the full year of 1910 are available they will develop no falling off in the importations of this staple. Cotton yarn, however, declined sharply in 1909 and 1910. The receipts of native cotton homespuns, principally from Canton, and of woolen and cotton mixtures increased in 1909, but disappeared during the first half of 1910. Woolens, on the other hand, were in less favor in 1909 than in the previous year. In only two items, woolen blankets and rugs and Spanish stripes, were the figures for 1909 above those for the preceding year, while cashmeres alone appear to have done better in 1910 than in 1909. Silk piece goods maintained throughout the period a steady increase in the amounts annually imported.

Nanning's Imports and Exports

Foreign and native metals showed some improvement, and the same may be said of foreign sundries. Foreign medicines, condensed milk, cigarette paper, singlets and drawers, socks, stores, umbrellas, and umbrella parts and fixtures, all improved in 1909 and show a steady demand in 1910. American kerosene jumped from 88,700 gallons in 1908 to 211,750 gallons in 1909 and 114,695 gallons for the first two quarters of 1910, while the imports of Sumatra oil, its only competitor, for the same years were, in gallons: 1908, 165,900; 1909, 297,620; and January to June, 1910 117,925.

The more important exports all show a steady increase in the amount during 1908, 1909, and the first six months of 1910, with the exception of star aniseed, which fell off sharply in 1909, on account of the unsatisfactory state of the foreign market, but recovered to a large extent in 1910. Aniseed oil increased from 71,200 pounds in 1908 to 143,600 pounds 1909, and then dropped to 32,533 pounds in the half year ended June 30, 1910. Beans increased over 6,000,000 pounds in 1909 as compared with the previous year, and the shipments for the first months 1910 amounted to more than two-thirds of those for the full year of 1909. Camphor declined in 1909 and disappeared during the first half of 1910.

Leaf tobacco declined in 1909, but the figures for the first half of 1910 are far above those of any full year on record.

The falling off in firecrackers and fire-works is attributed to a growing competition by similar products manufactured in Canton, in the preparation of the paper for which alum is used to neutralize the smoke. The use of alum for this purpose in Nanking has made but little headway, the manufacturers claiming that it is too expensive to allow them the customary profit on their goods.

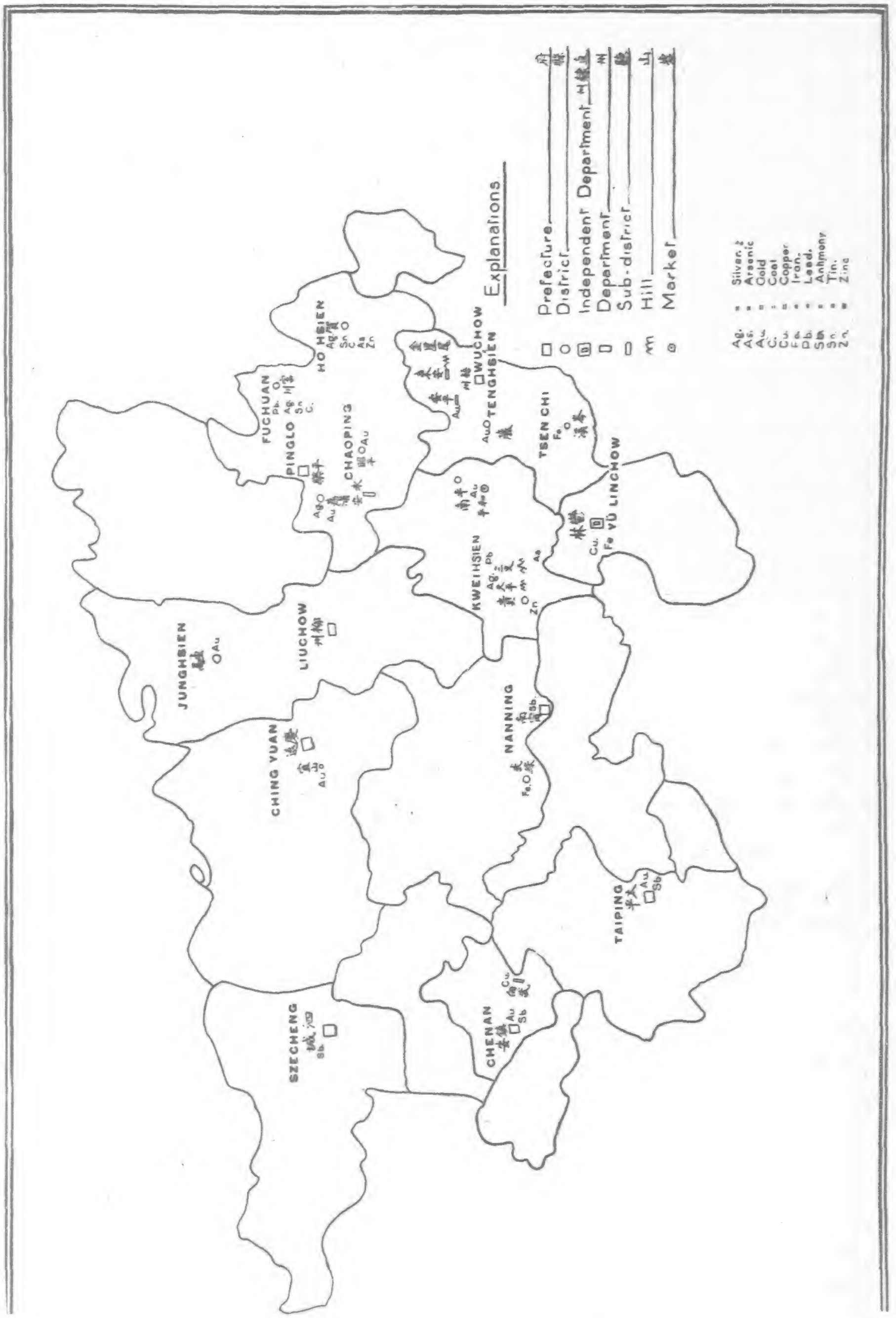
The following table shows the value, in American gold, of the trade of Nanning, exclusive of treasure, for the last nine months of 1907 and the two years 1908 and 1909:

Year.	Imports.	Exports.	Total.
1907..	$648,306	$571,927	$1,220,233
1908..	1,351,612	858,250	2,209,862
1909..	1,461,665	1,152,733	2,614,398

Wuchow's Foreign Trade

Wuchow is the most important port in Kwangsi, and its principal trade center, controlling by its situation practically the entire trade of the Province with Canton and Hongkong, with the exception of a small portion which enters by way of Pakhoi, on the Tonkin Gulf. The city has a native population of 65,000 and a foreign population of not more than 30. Foreign business houses have been slow to establish themselves here and the trade is still in the hands of Cantonese merchants, having their main offices in Canton or Hongkong and working with the big houses and banks of Canton, Fatshan, and Samshui.

As might be expected from this condition, the port has no direct commerce with foreign countries, its trade being entirely with Canton and Hongkong, with the exception of a small trade with Nanning and Lungchow. Wuchow merchants send their agents into the interior to dispose of their foreign imports for native produce, practically by barter, and bring the produce thus secured to Wuchow under transit pass and export it to Hongkong.



SKETCH MAP ILLUSTRATING SOME KWANGSI MINING AREAS

The district served by Wuchow comprises the larger part of Kwangsi and and sections of Yunnan and Kweichow. The combined area of these Provinces is about 291,120 square miles and the population about 25,000,000, about half of which draws its supplies from Wuchow.

The gross value of the port's trade that passed through the Imperial Maritime Customs at Wuchow for the calendar year 1909 was $8,218,757, made up of foreign imports $4,871,101, native imports $1,078,403, and native exports $2,269,253. The re-exports aggregated $1,809,341, thus making the net trade of the port for the year $6,409,416.

With the establishment of the Imperial Maritime Customs at Wuchow, foreign imports were laid down for the first time in Kwangsi upon the payment of a single import duty. The extent of inland taxation in Kwangsi formerly

may be grasped in some degree when it is known that in 1897, immediately before the port was opened, a piece of 10-pound gray shirting, after paying treaty and import duty at Canton, paid transit and other inland charges between Canton and Liuchow amounting to no less than 30 per cent *ad valorem*.

Taxes—Lack of Transportation

The trade of Wuchow still suffers from excessive taxation, but not to an extent comparable with that which it was forced to endure in its early and pretreaty days, and from currency conditions, the general poverty of the district which it serves, unrest in the interior, and the lack of favorable means of communication with the various inland points which it supplies. The water communication, by the West River, which Wuchow enjoys with Canton, 250 miles distant, and with the West River delta, while not perfect, is yet easy and safe and sufficient for the needs of its trade.

Neither Kwangsi nor Kweichow nor the section of Yunnan supplied by Wuchow has any railways. The existence of a Kwangsi provincial railway company is made known whenever any suggestion is made that foreign capital be employed to build railways in the Province; further than that, however, it has accomplished nothing to date. Three lines of railway for Kwangsi have been projected by the Ministry of Posts and Communications, but no one of them has as yet progressed beyond the "projected" stage.

Mineral Resources Not Developed

Coal is mined in the vicinity of the port, but only by primitive methods and in small quantities. It is of indifferent quality and employed principally for house-heating purposes. The river shipping is supplied by imported coal, mostly Japanese. Further inland occasional deposits of a better quality of coal are met with, but the output has reached no importance as an article of commerce. Tin mines are found in several places in the Province, where the ore is worked on a small scale by the natives. The smelting is done on the spot and the finished product comes to Wuchow for export as tin slabs. The high price which antimony reached on the Hongkong market some years ago led the provincial officials to open a smelter in Wuchow, but the almost immediate pricking of the boom threw the smelter out of work and it has remained idle ever since.

A concession was granted to a company composed of wealthy Cantonese, capitalized at $2,000,000, some three years ago, to work the mines in the Tienying hills, near Kweihsien. The mines have been carefully prospected by a native mining expert educated in the United States, who reports that, in the district examined, there are no less than 20 veins of silver producing, on an average, an ore that will clean up 10 ounces of silver to each 100 pounds of ore and that, in addition to the silver, there are small deposits of gold, copper, and lead. The concessionaires hope to turn out 100 tons of ore a day and perhaps to connect the mines by an electric trolley with Kweihsien and put on two boats of their own for regular service between that point and Wuchow and Hongkong.

DR. SUN YAT-SEN

Dr. Sun Yat-sen, Director-General of the Chinese National Railway Corporation left Shanghai in the middle of February on a trip to Japan. He has been given the most enthusiastic official and popular receptions and it is confidently hoped that his trip will tend largely to improve the relations between China and Japan. Dr. Sun is expected to return at the end of March.

BIG CEMENT CONTRACT

Awards were made at the bureau of supply, Manila, on January 23, on the big cement bids for the supply of 42,000 barrels or drums of cement for bureau stock. The only bidders for the contract were Messrs. Findlay, Richardson and Company and Messrs. Henry W. Peabody and Company. The award made gives the contract to Messrs. Findlay, Richardson and Compay and amounts to approximately P.231,000. The contract calls for a supply of "Alsen," a German brand of cement, to be delivered at Manila at P.5.24 per barrel, at Cebu P.6.14 per barrel and at Iloilo at P.6.14 per barrel.

CURRENCY REFORM IN CHINA

A Brief Retrospective Glance

A detailed account of the movement towards currency reform would be too voluminous for the purposes of the present article, but before presenting the report of the Chinese Currency Commission, which we have had specially translated for the FAR EASTERN REVIEW, it may be of interest to take a brief glance backward. There will be no necessity, however, to go further back than 1904, when the great American authority Professor Jenks prepared an exhaustive report and scheme for currency reform. At that period the Government of China was always willing to accept the assistance of foreign brains in theory, but in practice the reports obtained from foreign experts were for the main part allowed to accumulate dust and the veneration due to antiquity, in departmental pigeon-holes. It is not surprising, therefore, to find that no action was taken in connection with Professor Jenks' report until 1907 when the Board of Finance took up the matter and began to gather information from different parts of the Empire. In 1909 a regular Bureau of Currency Reform was established. It collected material and information for several months and at the beginning of 1910 a Currency Reform scheme, upon which the Currency Loan Agreement was made with the Four Nation Group, was devised and Dr. Chen Chin-tao was appointed chairman. It should be pointed out that the scheme upon which the Currency Reform Loan was based was only a part of the entire scheme. It was the first step. The body, at the head of which Dr. Chen Chin-tao acted, was in favour of the Gold Exchange Standard, but before they drew up the scheme, they asked the then Minister of Finance, Duke Tsai, to borrow a sum of Tls. 20,000,000 for the operation of the Currency Reform scheme to establish the Gold Exchange Standard. But the Duke refused, and, therefore, they had only in hand Tls. 10,000,000, and on that account they did not have money to begin with the Gold Exchange Standard. Also, they did not feel that there were Chinese able enough and sufficiently experienced to carry the entire scheme through, consequently, they adopted a plan somewhat similar to the Indian method, except that they did not propose to raise by extraordinary and forcible means the value of the silver coins by 20% or more before adopting the Gold Exchange ratio. The Indian method was to secure uniformity of rupees in the first place and then to close the mints. As no new supply of rupees was then forthcoming, and in consequence of the development of trade and the distribution through the interior of these rupees, the result was a greater demand for the coins. Their value would consequently rise. Generally, it is figured that 20% difference in the intrinsic value of the coins would be enough for the silver to rise in order to secure that the coin would not be exported or melted down. But during the period of closing the mints to force up the value of the coin, the market must necessarily be disturbed. The Indian method of adopting the Gold Exchange Standard requires two separate steps (1) the issue of new coins and securing uniformity of coins and (2) raising their value and adopting the Gold Exchange Ratio. Therefore the market is disturbed twice, especially in the latter period when the mints are closed to raise the value of the coins. This deranges the interest rate of the market, the relative position of debtor and creditor, and disturbs the equilibrium of imports and exports because it favours more imports and reduces exports.

CHOU HSUEH-HSI, MINISTER FOR FINANCE

The whole scheme devised in 1910 was to secure uniformity of coins as the first part, but for the second part, it was not intended forcibly to raise the value of the coins during the period they were being issued.

It was intended to train up Chinese for the exchange business. It was also intended to watch the seasonal variation of exchange and to maintain secretly the high value of the coins by means of the reserve abroad. Whatever variations there might be, this high value would be maintained for 2 or 3 years. During this time many of the silver coins would be withdrawn by the Government and put in the vaults against the issue of paper money. The coins so withdrawn could be either held in reserve or transported to the remoter parts of China. In course of time, the Chinese officials would have gained some experience abroad in regard to exchange business and the value of the silver coin would have been raised high enough according to the natural seasonal variation above its intrinsic value. If China so maintained the value of these coins for 2 or 3 years and then found that this value deviated from the fluctuation of raw silver, it would be known definitely that China had the machinery for maintaining the exchange value of the coin and was strong enough to maintain that exchange value. Then it would be for the Government to announce this Gold exchange value for the Dóllar, or if the Government did not like to take this step, they could go on for some years maintaining its value without taking the responsibility of guaranteeing the exchange ratio. But the market would reap the same benefit as from a Gold Exchange Standard, although it was not officially announced. Therefore, this scheme was very safe. The men would be trained up and it would have been proved that the organization was strong enough, before the Government took the serious step of giving a promise to fix the ratio between the silver coin and the Gold. Moreover, the market would not be disturbed twice as was the case in India.

The Indian Government began to fix the Gold ratio when it had barely £6,000,000 sterling gold reserve. Therefore, if the Chinese Government, in reforming the Currency, adopted the scheme of issuing paper money as a substitute for dollars for several years, it would obtain enough to keep up the Gold reserve. This ingenious method would not involve a preliminary promise before the machinery would be completely established.

The association of Sheng Hsuan-huai, generally known to foreigners as Sheng Kung-pao, with the question of Currency Reform, is worth recollecting. Sheng, it is averred, has nothing to learn in regard to "smart" financial methods. It is well known that the greater portion of Sheng's money and that of his relatives was invested in the Hangyeh-ping Company, and that the company could never pay without reorganizing the machinery. Two or three years ago Sheng, it is stated, stood to lose about $1,000,000 per year unless the machinery were renewed. It was next to impossible for him to obtain money, and he required about $20,000,000 more to so equip the Works that he could get them upon a profit making basis. Sheng wished to raise a foreign loan, but the Government deemed that it was dangerous to allow the foreigner to gain control of such a valuable and important property in the heart of China. What was Sheng to do? It is claimed that he evolved a very ingenious plan. He decided that he would have himself put in charge of the Currency Reform and thus have the Government Bank,

CHANG TSUNG-YUEN, PRESIDENT OF THE CURRENCY REFORM COMMISSION, EX-VICE-MINISTER OF FINANCE

which was to be associated with the scheme, under his hand. During the Currency Reform the Government Bank was to issue notes and would have to have securities to back up the note issue. Sheng saw in this a great opportunity to issue bonds for his company and to get the Government Bank to take them up as security for the note issue. That was his plan. He became Minister for Transportation and was entrusted with the reorganization of the railways. In the loans that he made in this capacity, he made it a condition that rails must be purchased from the Hangyehping Iron Works which would thereby be kept busy for about 4 or 5 years.

Sheng, although Minister in charge of the Currency Reform, had no expert knowledge of the matter, and while he was in charge, he never made any step in the direction of reforming the Currency. He gave his attention solely to the size, form and design of the coins. He thus wasted his time hoping that he would get the Currency Loan and the other financial advantages before he commenced to work. Sheng, it is alleged wanted to use the Currency Reform scheme to save his Hangyehping Company, and this caused the proposal for the nationalization of railways, and this in its turn led to the rising of the people and ultimately to the Revolution.

In regard to the Currency Commission, the labours of which may not prove to be final, inasmuch as another Committee may be formed to report on its report, it is a great pity that the Commission did not have the assistance of Dr. Chen Chin-tao, who was recently appointed Head of the Audit Department. Dr. Chen Chin-tao, while the Committee was holding its meetings, was engaged on important investigations in regard to the Government auditing systems in Europe and America. There is no living Chinese publicist who knows more of the question, and it is to be hoped that if another Committee is formed that advantage will be taken of his wonderful knowledge of financial matters in general, and those affecting China's Currency problem in particular. Dr. Chen Chin-tao is one of the founders of the Shing-Hua Exchange Bank which received its charter from the Advisory Council on November 22nd, 1912. This institution is to fulfil functions for China somewhat similar to those performed by the Yokohama Specie Bank for Japan. It is supported by the Government to the extent of $10,000,000, but is owned by private shareholders. It would be a regrettable thing for China if the Government fails to make it possible for Dr. Chen to give his services in the reform of the Auditing Department and China's Currency. Men of his attainments are too few and far between in China for the country to regard with equanimity his withdrawal from active participation in the gigantic work of reorganizing the financial machinery.

THE CURRENCY COMMISSION'S REPORT

Some Introductory Remarks

Most of China's difficulties are financial, in the broad as well as in the narrow sense. She has been wanting money for a very great length of time, and she has been wanting an improvement in the money she possesses for longer. Even those who take no interest in currency problems, if they live or travel in China, find themselves compelled to notice that sale or purchase or banking operations are attended by elements of unpleasing uncertainty. The fact that the currency is based on silver and that all important operations are calculated in a fictitious unit, which changes its value even in adjoining districts, has long made China the despair of the statistician and the paradise of those who thrive by "exchange." In our November issue we gave a synopsis of Dr. Vissering's extremely valuable treatise on Chinese Currency Reform. Dr. Vissering, in that excellent work, propounded a scheme for currency reorganization in China that was divided into three periods. For the benefit of those who may not have studied Dr. Vissering's proposals we may recapitulate the main points. The reform was to be spread over the three periods as follow :—

First Period

1. The very first step must be the adoption of a future gold unit as a foundation of the new system, in order to avoid speculation on the announcement of the gold par, and also to avoid that the new unit would later on have to be raised to its future nominal value.
2. The organization of a central bank of issue, or otherwise the reorganisation of the Ta Ch'ing Bank as a central bank for the whole country.
3. The introduction of the new gold unit as a money of account for book credits and book transfers.
4. Securing the co-operation of the foreign exchange banks and of the private Chinese banks and bankers for the introduction of the new gold unit into their bookkeeping.
5. The issue of bank notes based upon the new gold unit.
6. The accumulation of a gold reserve against the aforesaid bank notes.
7. The regulation of the management of this gold reserve.
8. Eventually declaring the bank notes legal tender.
9. To make a close study of the conditions of the balance of trade and of the balance of payments for China.

Second Period

10. The establishment of weight, fineness and alloy of the token coins and of the new subsidiary coinage.
11. The issue of these tokens, coins and subsidiary coins, and simultaneously,
12. The accumulation of a gold reserve against the token coins and the regulation of its management.
13. If desirable: the coinage and issue of gold coins. Also, if desirable, the

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temporary admission of some particular foreign gold coins as legal tender, and the temporary issue of gold certificates.

14. The proclamation as unlimited legal tender of:

a. the silver token coins of 1 unit and 2 units;

b. the above mentioned gold [illegible] eventually the gold certificates.

Third Period

15. The gradual withdrawal and subsequent demonetization of the old silver dollars, as far as necessary of the old sycee and of the present copper cash.

While the Chinese have sought the advice of renowned foreign experts such as Professor Jenks and Dr. Vissering they have not forgotten the fact that they have among themselves several men who are admittedly thoroughly well informed in matters of finance and currency. To name but three Dr. Chen Chin-tao, Hsu Un-yuen and Dr. Chang Tsung-yuen are men of more than local reputation. It was very properly felt that while, necessarily, the opinions of foreign experts in view of their wider experience and more extended studies, were absolutely essential, the aid of Chinese experts was also material in view of their superior knowledge of their own people and conditions. With a view of making the greatest possible use of both foreign and Chinese expert knowledge a Committee called the Currency Commission was formed. The report of this body we give elsewhere, and from it can be judged the value of the work it has accomplished. It is of interest to note that the Commission consists of twenty legal, acting and associate members. Among the members are the Minister and Vice-Minister of Finance; Dr. Chang Tsung-yuen, the Financial Commissioner who has been sent to London; the President and Vice-President of the Bank of China; the President of the Exchange Bank, and the Director of the Division of Money and Banking in the Board of Finance. The acting members are those who have specialized in currency and the associate members are drawn from other Boards and are men who have had experience in currency matters.

The original intention was to have a special Bureau of Currency, but the Advisory Council would not pass the appropriation for its inauguration and this idea, unfortunately, was abandoned. In view of this it was decided to establish a Currency Division under the Board of Finance with the title of "The Division of Currency and Banking." The Currency Commission was then formed to consider the subject and to report to the Government.

The Commission held several meetings in October and November last year and it was aided by Dr. Vissering and the late Dr. Roest, whose tragic death at Mukden while on his way from Europe to Peking to take up his post as Currency Adviser will be remembered. The meetings were presided over by Dr. Chang Tsung-yuen. A study of the minutes shows that the members had a thorough grasp of the subject and this is demonstrated by the searching questions put to the foreign experts by Messrs. Tao, Woo, Sung, Lee and Dr. Chang among others. These questions and the conclusions finally arrived at show that the great desire was to ascertain not the theoretically best system, but the system that could achieve the best practical results for China in the shortest space of time. The members of the Commission aimed at securing the adoption of laws regulating banking in relation to currency; unifying the various provincial mints and placing them under central control, and at establishing a gold reserve. The more enthusiastic wished to see the reform carried out comprehensively in the shortest possible space of time. Others wished to see the change introduced at different places at different times and full notice given to the people so as to prepare them for what would certainly be a revolution in their ordinary methods. Some preparation in the shape of explaining to the people the true purport of the change, it was thought, would be necessary. Some questions would have to be left in abeyance until definite steps were decided upon. The rate of exchange between the old and the new money was a point upon which members of the Commission were anxious for light. When the reform is actually introduced the Government will endeavour to secure the aid of the Commercial guilds and similar bodies to assist in rendering the introduction of the new system as smooth as possible. Rewards will also be offered to those who watch the operation of the reform, note the difficulties and suggest improvements and rectifications. Cordial co-operation between the Government and the commercial and financial interests, foreign and Chinese is aimed at and will, it is thought, go far towards rendering easy the application of a reform that will eventually be of incalculable service to the country. It is proposed to establish a school to educate students in currency matters and to send those who show promise abroad further to study the question.

A fact that must be kept in view when considering currency in China is that the only real currency of the country is copper. The daily purchases of 99 per cent. of the people are made in copper, or upon a copper basis, to speak with absolute accuracy. The indefinite

WANG CHING-FANG, VICE-PRESIDENT OF THE CURRENCY COMMISSION; DIRECTOR OF THE BUREAU OF AUDIT, DIRECTOR OF THE BUREAU FOR REORGANIZING THE NATIONAL TAX OFFICES

tael is a fiction like the guinea in England; it is pretty generally known that in England no one, unless he be a purchaser of race-horses, works of art or similar luxuries, ever dreams of calculating in guineas. The bulk of the people of China do not concern themselves about taels. The dollar is largely a treaty port freak. It has never entered into the national life of the people, being too large as a unit for every-day use. It seems obvious, therefore, that whatever coin is ultimately fixed upon as a unit should be of a relatively small value, a point that Dr. Vissering has very properly strongly insisted upon.

The question of counterfeiting was one to which the Commission wisely devoted considerable attention. This is a question of the first importance and it will be seen that the Commission has dealt with the matter fully in its report. The point that stands out most strongly after perusing the minutes of the Currency Commission and the Report is that the members fully recognised the paramount importance of the subject with which they were grappling. The chaotic condition of China's currency has kept her back more than the unthinking suppose, and a universal system throughout the Republic will result in a quickening of the commercial and financial life of the country that will be a revelation to those who fail to realize that without a stable currency the economic wheels cannot revolve without friction. The thoughtful and valuable suggestions presented by the Commission, though they will not find acceptance in their entirety from all, are most encouraging in that they show that the brains of China are concentrating themselves upon a problem the solution of which would be of infinitely more valuable than the essays in statecraft upon which China is sometimes urged to adventure.

FINAL REPORT ON THE MEETINGS OF THE CURRENCY COMMITTEE

[SPECIALLY TRANSLATED FROM THE CHINESE FOR THE FAR EASTERN REVIEW]

This Committee was established on the 8th day of the 10th month of the first Year of the Chinese Republic, and up to the 17th day of the 12th month, 38 meetings took place. With the exception of the meetings for the discussion of the Regulations of the Banks, 23 of the above number of meetings were occupied in the discussion of the currency question. All the discussions may be grouped under the two following headings:—

1, the question of standard, and 2, the essentials of the Gold Exchange Standard.

THE QUESTION OF STANDARD

The standards of currency may be divided into five kinds, 1, Gold Standard; 2, Gold Exchange Standard; 3, Gold and Silver Standard; 4, Silver Standard, and 5, Paper-Money Standard. As the Gold and Silver Standard has been proved a failure, and the Paper-Money Standard is exceedingly dangerous, there is no need of discussing them. Therefore this Committee has paid more attention to the following standards:—Gold, Gold Exchange and Silver; and they will be fully treated in the following.

THE ADVANTAGES AND DISADVANTAGES OF THE SILVER STANDARD

1. *The advantage of the Silver Standard.*—There is only one advantage for the adoption of the Silver Standard, *i.e.*, it affords facility in circulation. In the Gold Standard system, the Gold Unit is to be represented by token coins or exchange notes: and as exchange notes possess no real value, the real value of token coins being far below their face value, they could only be circulated if the Government gains the credit of the people. In the Silver Standard there is no such disadvantage, because the value of the legal tender of silver is equal to its real value; hence, it is welcomed by the people. Moreover, the Chinese are accustomed to the use of silver, thus giving facility to its circulation. This is, therefore, the sole advantage of the Silver Standard.

The reasons which lead Chinese to think of adopting the Silver Standard are as follow:

Every year in China the imported goods far exceed those exported, and should a Gold Standard be adopted the imported goods would increase more and the exported decrease; hence it is desirable that a Silver Standard should be adopted as a remedy. Even foreigners believe in such a fallacy. We will point out this fallacy by the following explanations:

Those who advocate a Silver Standard argue as follows:

There is a rise and fall of the market price of the silver bullion, the fluctuation of which will never be seriously felt, if not reckoned with gold. In a country where a Silver Standard is adopted, the fall of the market

price cannot be readily felt by the common people; hence no increase of wages is demanded; if there be no such demand, it means that there will be no rise in the price of the products of industry. Thus, when the market price of silver is low nothing would

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affect the price of export goods. If reckoned by gold the difference would be felt. Therefore in such a time if goods be sold to a country whose standard is gold, when the price be realized in silver there would be a profit. In such an instance even if the other party insists upon a reduction of price for the goods sold, there would still be profit. This then is an influence which tends to the increase of exported goods.

But such an erroneous theory can be refuted by the following facts: Silver Standard could by no means increase exported goods. When the Siver Standard was adopted in India, it was noticed that the increase of exported goods was very slight in the time when the market price for silver was very low, in comparison with the time when the price was normal. In China from the year 1891 to 1901 the increase of exported goods, was 21%, thus the average yearly increase was 2%. The increase was far below that of those countries whose standard is gold, such as Japan, Philippines, Hongkong, etc. In Mexico, from 1892 to 1902, the increase of exported goods was 18, 38/100%, thus making an average yearly increase of less than 2%. The products of Mexico have lately been greatly increased, but her increase of exported goods was slight. Judging from the exported goods of the above three countries, it is undeniable that the fall of the market price in silver will by no means encourage the export trade.

Furthermore, should it be possible to encourage export trade by a fall of the market price in silver, it is still impossible for the country, which has adopted the Silver Standard, to derive any profit, because when reckoned by silver there is apparently an increase, but when reckoned by gold really there is a decrease. In 1902 the total of exported goods of Mexico was $20,000,000, and if there was no fall in the price of silver the goods would have reached a value of $33,000,000. Take the instance of the international trade of China; when a comparison in the price of exported goods is made between the year 1903 and 1899, there was a loss of $35,000,000 due to fluctuation of price of silver and an increase of $20,000,000 in the price of imported goods by foreign countries which have adopted the Gold Standard. Thus the total loss to China was no less than $55,000,000. In a word, we have given out more goods in exchange for less commodities. Thus the country which has adopted the Silver Standard will always sustain a tremendous loss in her international dealings.

Therefore it is plain that will be no increase, and should there be an increase, it would not profit the trade. The only advantage of Silver Standard is confined to the facility of circulation.

II. The Disadvantages of the Adoption of the Silver Standard

There are four disadvantages, as follows:—

1. *In international exchange.* In dealing with Gold Standard countries the exchange could not be fixed owing to the fluctuation of the price of silver. When the price of silver is low, great loss would be involved in the redemption of foreign loans, and in the transmission of funds by the people.

2. *In international trade.* As the exchange differs so much, in the international trade margins have to be made twice, *i.e.*, between the time when goods are bought and the time they are sold, and between the time when the goods are advanced and the time when the payments would be made; allowance must be made to provide against any loss. The trade between two Gold Standard countries is easier to develope, because they have only to make one allowance against any fluctuation of price.

3. *In the exchange of commodities, the Silver Standard country has to give a greater quantity of goods.* The reason is that when the price of silver is low the price of exported goods of the Silver Standard country will be cheaper, and when the price of gold is higher the price of the exported goods of the Gold Standard country will be dearer. Thus the trade between these two countries would naturally result in the disadvantage and loss to the party that has adopted the silver standard. (When reckoned with silver it is true that there seems no loss, but when reckoned with gold the loss would be seen readily). Again, if the traders of the Silver Standard country should use the proceeds of their goods sold in the Gold Standard country to purchase her goods, it is obvious that in the exchange of commodities there is tremendous loss to them.

4. *In the securing of foreign capital.* The fluctuation of the prices of Silver and Gold is so precarious, that the investment of capital in a Silver Standard country is subject to constant vicissitude, and it would sometimes be that the interest gain would not be able to cover the loss by exchange, when the price of silver falls. Therefore, nearly all the loans contracted by China are reckoned by the gold standard or none would take the risk of fluctuation by investing capital in a Silver Standard country.

There is only one advantage against four disadvantages and it is plain that the Silver Standard should not be adopted. But there is another suggestion that as the present system of currency is so corrupt, it is desirable that *uniformity of the silver currency should first be effected*, and then, copying the example of India, by stopping the free minting of the silver coins and raising the price of silver, to fix a ratio between silver and gold, thus bringing about the Gold Exchange Standard. Thus the Silver Standard is only temporarily to be adopted in this period of transition.

The above theory is impracticable, as it is full of inconvenience. There was a special reason for the measures of the said currency reform of India. Before the reform India had a superfluity of rupees in the market, and if China is going to copy her example she has first to mint a tremendous amount of silver coins. Moreover, after minting the silver coin, fixing the ratio between silver and gold, and raising the value of the legal tender, the merchants and people would no doubt accumulate such silver coins for speculation, as it was done in India. Would it not be better at once to adopt the Gold Exchange Standard, in order to avoid having twice to disturb the financial condition of the country? Hence the Silver Standard should not be used as a transitory measure.

Some suggested that the Gold Standard should be adopted. But it does not suit the present circumstances. It would be necessary to mint gold coins, (1) Considering the present financial difficulties, it is inadvisable to spend a big sum of money to mint the gold coins, (2) To provide the whole country with sufficient gold coins, there must be enough gold bullion and coins in the Treasury, thus much interest would be lost. Should this big amount of gold be reserved in the Treasury as a gold reserve for a similar Government paper money, as the new standard has not yet been enforced, these papers would hardly represent the new gold unit. (3) The standard of currency is closely connected with the standard of living of the people of the country. If the standard of living be low, the Gold Standard cannot be adopted. Should such standard be forced upon the people it is feared that they would either convert the coins to other uses or sell them to foreign countries. In view of the above three difficulties, there is no need to consider the Gold Standard.

The Advantages and Disadvantages of a Gold Exchange Standard

I. There are eight advantages of a Gold Exchange Standard

1. *Stability in international Exchange.*—Should we adopt the Gold Exchange Standard, in the exchange business the rate cannot be higher or lower than the rate of gold for the international trade; and there is no fear of loss of exchange in the repayment of foreign loans.

2. *The development of our international trade.*—The trade will not be affected by the vicissitudes of the price of silver, and there would be no need of making great margins for fear of loss. Thus our trade can be expected to develope.

FAR T. SUNG, MEMBER OF THE CURRENCY REFORM COMMISSION

3. *No fear of giving greater quantity of goods in the exchange of commodities.*—In the international commercial dealings we will be on the same footing as they, as both parties will use

gold as the standard. There will be no fear of incurring the disadvantage of the Silver Standard.

4. *Liable to obtain foreign capital.*—In view of the vast resources of China, it would naturally attract the attention of foreign capitalists; but owing to the absence of a currency standard, they do not want to take the risk of loss by exchange. Should a Gold Exchange Standard be adopted, the foreign capitalists not only would lend their money for interest, but would invest it in industrial enterprises, etc. When the Gold Standard was introduced in Russia big sums of money flooded in.

5. *Gold Standard may be conveniently introduced at any time to replace the Gold Exchange Standard.*—When the standard of the living of the people is higher the minting of silver coins may be abandoned, and gold coins according to the fixed standard may be minted, and circulated. This was done in Mexico.

The above five advantages are directly opposite to the disadvantages of the Silver Standard.

6. *In the country there is facility for still using the silver coinage.*—In a country where the standard of living is low it is inevitable that silver should be used in the interior because the gold coin is too big to pay a small sum. By adopting the Gold Exchange Standard, though all reckoning should be done in gold, the payments and receipts will be transacted by silver.

7. *The price of silver will not fall suddenly.*—If the Gold Standard be adopted, the silver, which has hitherto served as the medium of exchange, besides serving as subsidiary coin, would lose much of its utility. The supply would far exceed the demand, hence the price would fall considerably. If a Gold Exchange Standard be adopted, silver would be used in coining the token coins, and there will be no financial crisis.

8. *There is no need to keep a big amount of gold and thus a loss of interest would be avoided.*—Unlike the adoption of Gold Standard, the Gold Exchange Standard does not necessitate reserving a large amount of gold bullion or gold coins, losing the interest thereof.

The last three advantages are directly in opposition to the disadvantages of adopting a Gold Standard.

II. *There are two difficulties in connection with Gold Exchange Standard.*

1. *To maintain the adapted prices between the silver and the gold.*—In intercourse with foreign countries everything would be reckoned by gold, and in the country silver is used. To maintain the legal price of the silver coins, there must be well regulated organs, and good management. Should the Government for the sake of gain issue too many silver coins the prices between silver and gold will not be maintained. Then the Gold Exchange Standard would be a failure.

2. *It is difficult to introduce it in the beginning.*—As there are no gold coins to be circulated in the country, it is difficult to make the people understand that the token coins and exchange notes would represent the gold unit, because the value of the legal tender of these silver token coins is below their real value. It is the custom of our people to take the coins at their intrinsic value, and if they notice that the face value of these new coins is far above their real value, they would refuse to accept them. However, it must take time in order to obtain the credit of the public.

In this standard there are seven advantages against two difficulties, therefore it is preferable to the other two standards.

Chapter II. The Essentials of Gold Exchange Standard

There are three essential points with regard to the Gold Exchange Standard.

1. The representative of the gold unit; 2. The Gold reserve; and 3, the Comparison of Silver and Gold.

1. *The representative of the gold unit.* As there will be no gold coins circulating in the country and all accounts are to be reckoned by a gold unit fixed by law, there must be a medium of exchange to represent this unit. There are two kinds of medium, as follows:

(*a*) From the beginning there should be a kind of silver token coin to represent this Gold unit. The legal value of the silver token coin, used in the Gold Exchange country, is far below its real value, and is used to represent the fictitious gold unit fixed by law. This was done from the beginning of the currency reform of both of the Philippine Islands and Mexico.

(*b*) From the beginning to use the exchange notes of the Central Bank to represent this gold unit. The exchange notes of the Bank shall be first used to represent this fictitious gold unit fixed by law, and then as required by circumstances issue silver token coins. This theory has been advocated by Dr. Vissering.

Let a comparison be drawn between the above two suggestions, to ascertain their advantages and disadvantages.

The advantages of (*a*) are as follows:—

(1). It is easier to circulate the silver token coins than the exchange notes. Though the former has a lower real than face value, yet it is better than the latter, which has no real value at all, and naturally the former would be better received by the public.

(2) In time of great crisis the silver token coins would be far preferable to exchange notes, which have no real value at all.

(3) The rate of exchange between the silver token coins and the exchange notes would be fixed. According to (*b*) the Government exchange notes can only be exchanged for the old silver coins, and, as the rate of the latter is subject to changes, the exchange rate can never be fixed. If the silver token coins be introduced at once, the exchange notes of the Central Bank can both represent the gold unit and the silver token coins. Although the gold unit be a fictitious one, the silver token coin is a real one. Thus the rate between the silver token coins and the exchange notes would be fixed.

(4) There will be an uniform currency from the very beginning. If the suggestion containing in (*b*) be adopted there will not be such an advantage, as old coins would continue to circulate.

(5) Old coins can be recalled from the market. By issuing silver token coins, the old coins may be replaced immediately.

The disadvantages of (2) are as follows:—

(1) While the new coins are smaller than the old, their legal value is higher. It is feared that by comparing the two, it will be hard to persuade the public to accept the same. Hence it seems better to use the exchange notes from which no comparison could be drawn.

(2) It is difficult to adopt by law the relative price of silver and gold. If such price be too low, when the price of silver bullion be high the new coins will be exported or destroyed for other purposes, as was done in the Philippine Islands, and if too high, great profits would be derived by forgery. It would be impossible to guard against forgery by foreign bad characters and foreigners hiding themselves in foreign settlements.

But the above disadvantages are unavoidable if the suggestion of (*b*) be followed.

The advantages of (*b*) are as follows:—

(1) It is easier to guard against forgery. It is a far more difficult thing to forge a note than a coin. This is the only reason, Dr. Vissering favours the suggestion of (*b*)

(2) It is easier to obtain gold reserve. Although there is profit in minting silver token coins, it requires big capital. It is not so with the issue of exchange notes which have no real value, and the proceeds of these notes can be used as gold reserve.

(3) There will be no comparison between the old and the new coins (vide the 1st disadvantage of (2).

(4) It is more convenient to use paper money than coin, as universally recognized by finance experts.

The disadvantages of (*b*) are as follows:—

(1) It is inconvenient in exchange. As the gold price of the old silver coins fluctuates the rate of exchange could not be fixed. The people would be led to think that the price of the exchange notes is irregular, hence, they may refuse to accept them.

(2) Owing to the above reason, it would be difficult to circulate.

(3) The old silver coins will be hard to recall from the market, because such notes would be hard to circulate.

(4) It would be difficult to cash these notes during a time of crisis, and as the reserve would be in foreign countries, it is feared that the Central Bank would fail to meet its obligations.

Comparing these two suggestions, it seems that (*a*) is more advisable. The only advantage of (*b*) is that it is less liable to forgery; but still forgery is unavoidable. But the disadvantage of (2) may be avoided if more adequate means be used to guard against forgery. More refined designs be made on the coin; the co-operation of the foreign authorities could be secured to guard against forgers in the foreign settlements; and stricter investigations be made by the Customs; and we do not see why these disadvantage cannot be avoided. As to other advantages and disadvantages when a comparison is made it is advisable to adopt the suggestions contained in (*a*).

II. *The Gold Reserve.* The reserve may be divided into two kinds; (1) The Exchange reserve, *i.e.*, the exchange is to represent the token coin of the Gold unit, or the gold amount of the exchange notes: and (2) The reserve for the repayment of foreign loans.

(1) The method of the exchange reserve. Raise an amount of gold equal to the amount of token coins, which represent the gold unit, or the amount of the exchange notes, issued by the Government. This amount will be kept in foreign markets. When these token coins and exchange notes are used in buying foreign gold orders, the token coins and exchange notes may be cashed from this reserve. If after these coins and notes have been bought back, the Government or people still want to pay foreign loans, they may be paid by silver.

(2) The Gold Reserve for the repayment of foreign loans. Raise a big amount of gold, and buying foreign gold orders with the token coins and the exchange notes. Besides cashing the coins and notes the amount may be used in the repayment of foreign loans and the settlement of international accounts.

The following are the advantages and disadvantages of (1) and (2). The advantages of (1) are as follows:—

(*a*) The profit of minting the silver token coins, or the proceeds of the exchange notes may be used as the Gold reserve; and there is no necessity for a loan.

(*b*) To use silver to repay foreign loans or to settle international accounts, there is no fear of a greater supply than demand, and the financial situation will not be affected by a sudden fall in the price of silver.

The disadvantages of (1) are as follows:—

(*a*) If in the beginning of the currency reform, great sums of money be required to settle the international accounts, and the sums have to be remitted to the foreign countries. It is natural that the people will use up all the token money and exchange notes to purchase the international money orders, and, as then externally there will be no reserve abroad and internally then will be no representative of the gold unit, in circulation, the gold exchange standard will be reduced to merely a gold unit by name. When the new coins are widely circulated as medium of exchange, the old coins will be recalled from the market and then there would be no fear of the above failure. The trouble is when in the beginning the people would use all the token coins and exchange notes to buy gold orders, leaving the

old coins to be the medium of exchange in the country.

(*b*) If silver be used to pay international accounts, the foreign bankers may lower the price of silver when the payment is due; thus we will suffer loss as we have done now.

(*c*) If silver be used to repay the foreign loans, the Government will be unable to fix the budget on the item of the redemption of foreign loans, because the price of silver varies.

The advantages of (2) are as follows:—

(*a*) As we have a large gold reserve, when redeeming foreign loans as settling international accounts both silver and gold may be used, and there will be no anxiety that they would lower the rate of silver to cause us a loss in exchange.

(*b*) If gold be used to redeem the foreign loan, it would be easy for the Government to draw up the Budget, in regard to the repayment of the loan in the year.

(*a*) Having a large gold reserve, in the beginning of the currency reform more token coins or exchange notes may be issued to replace at once the old coins. Stop the circulation of Sycee (bullion) at once. Not only will not the foreign reserve be used up, but the new coins will be still circulating in the country.

The following are the disadvantages of (2):—

(*a*) To raise a large gold reserve, the Government would have to contract foreign loans.

(*b*) In the redemption of foreign loans and the settlement of international accounts, if less silver be used it is probable that the supply of silver in the country will far surpass the demand, thus resulting in a financial crisis from the fall of the price of silver.

A comparison of the above will show that (2) is more preferable.

III. The comparison between silver and gold, *i.e.*, the equivalent of the fine gold which is supposed to be contained in the Gold unit to the bullion par of the silver token coin which represents the Gold unit. It is not exactly the equivalent between the gold bullion and the silver bullion. When fixing the comparison, it is necessary that the face value of the silver token coin should be much higher than its intrinsic value. There are no fixed rules laying down how much higher it should be.

(1) In the following instances the face value of the silver token coins has been exceedingly high.

In Japan the yen is at a gold ratio of 21.6 to 1; in India the rupee is 21.9 to 1; in the Philippines and Straits the dollar is 21.3 to 1.

(2) To make the face value a little higher than its intrinsic value. In former times the gold ratio in Japan was 29.1 to 1, in the Philippines 32.24 to 1 and in Mexico 32.58 to 1.

Let us consider the advantages and disadvantages of the above (1) and (2).

The following are the advantages of (1).

(*a*) The coin will not be melted, because, however high the market price of silver may be, it will not be higher than the face value of the token coins.

(*b*) A considerable gold reserve may be derived from the seigniorage profit from coinage.

The disadvantages of (1).

(*a*) The difference between the face value and the intrinsic value is so big, that special means must be provided to guard against forgery from which great profit could be derived.

(*b*) It is feared that in the preliminary stage the public would refuse to accept it.

The advantages of (2)

(*a*) As the face value is not much below the intrinsic value, it is easier to guard against forgery.

(*b*) More acceptable to the public in the preliminary stage.

The disadvantages of (2).

(*a*) When the price of the silver bullion is high, and the silver contained in the coin is above its face value, the coin will be melted. The Government would have to fix the ratio again and to mint over again the token coins. At one time Philippine Government fixed the gold ratio at 32.24 to 1 and the result was that when the price of silver was high the coins were melted or exported.

A comparison of (1) and (2) will show that although the disadvantage of (2) is great, the disadvantage (*a*) of (1) must be seriously considered. First we must consider the inefficiency of our police system; and secondly, as there are many foreign settlements in the country, it is difficult to keep out the foreign forgeries from them. It seems more advantageous to adopt the suggestions of (2); but to avoid forgery it is advisable that the face value should not be too high above the intrinsic value, nor too near, so that the failure of the Philippines may not be repeated in our country.

The Committee therefore decided that in the currency reform of this country the Gold Exchange Standard should be adopted, as regards the essential points of the Gold Exchange Standard: that the gold unit should be represented by silver token coins, which seems to be better than the exchange notes: that the gold reserve should be sufficient to meet the demands of exchange, the repayment of foreign loans and the settlement of the international trade balance; and that the fixed ratio should be settled to guard against forgery and melting, and it should neither be too high nor too low.

The above is a summary of the results arrived at the meetings.

THE CENTRAL BANK

The articles of the proposed Bank of China, which, as indicated in the report, is to perform functions somewhat similar to those of the Bank of England and other semi-state institutions, have been prepared and submitted to the Advisory Council. They have not yet been adopted. Below we give a translation of the artlcies:—

ARTICLES

1. The Bank of China shall be a limited Company in shares.

2. The capital of the Bank of China shall be $60,000,000, divided into 600,000 shares, each share $100. The Covernment shall first buy 300,000 and the rest are to be sold to the people. If the people should demand more the Government will sell the shares it holds to them from period to period.

Should it be necessary that the capital should be increased, it shall be done by the decision of the shareholders' meeting, and the approval of the Minister of Finance.

After the introduction of the new monetary system, the amount of dollars in the share shall be re-adjusted accordingly, and the difference shall be settled with the shareholders.

3. One third of the amount of the shares bought by the Government shall first be paid to the Bank of China to start the enterprise, and the same shares should be sold. The regulations for the sale of shares shall be fixed separately.

4. The Bank of China shall fix its Head Office at the seat of Central Government; shall establish branch offices or sub offices in the capitals of the provinces, and other commercial centres according to circumstances; and shall make agreements with other banks regarding agency or exchange. But all the above have to be approved by the Minister of Finance.

Should the Government deem it necessary, it may consult or instruct the Head Office to open a branch or sub office, or agency at an indicated place.

5. The names of the shareholders shall be prescribed in the shares, and none besides the citizens of the Republic can hold them by right of purchase or transfer.

6. The period of the Company shall be 30 years, commencing from the date when the Head Office is opened, and after expiration the period may be extended by the decision of the shareholders' meeting and the approval of the Minister of Finance.

7. Out of the total amount of the yearly profit above one tenth shall be laid aside to build a public fund, and the rest will be paid to the shareholders as profit of their shares.

The accumulation of above fund and the payment of profits shall be decided by the Shareholders' meeting and approved by the Minister of Finance.

8. The fund referred to above shall be used as follows:—

(*a*) To make up the loss in the capital.

(*b*) To maintain the equality of the profits.

9. The business of the Bank of China is as follows:—

(*a*) To manage the certificates of the Government treasury, commercial letters of credit and the issuing or cashing of exchange notes.

(*b*) To manage the exchange business and to issue notes.

(*c*) To deal in silver and gold bullion and moneys of other countries.

(*d*) To receive various kinds of deposits, and the safe-keeping of various documents and other valuables.

(*e*) To collect the amounts of various notes, etc., for other banks, companies, shops, individuals or those who have intercourse with the Bank of China.

(*f*) To loan funds by the security of gold and silver wares, or gold and silver bullion.

(*g*) To loan funds, which are either paid at once or by instalment, to the public on the security of the certificates of government bonds, or other various kinds of valuable documents or certificates issued by the Government. The amount and interest should be decided according to the conditions by the Director, Vice-Director, Committee or Superintendent, and to be approved by the Minister of Finance.

The limit of the above items shall be fixed separately.

10. The Bank of China may deal in bonds on public loan, but with the approval of the Minister of Finance.

11. Besides the business specified in the two previous articles the Bank of China should not deal in the following and other business.

(*a*) To take immovable properties or the shares of the various banks or companies as security.

(*b*) To buy from the public the shares of the Bank of China, or to take them as security for loan.

(*c*) To buy or to accept immovable properties, besides what is necessary for the use of the Bank.

(*d*) To take part directly or indirectly, in any industrial or commercial enterprises.

12. The Bank of China shall have the right to issue and circulate exchange notes, but it should observe the regulations regarding exchange notes.

The regulations of the exchange notes shall be fixed by law.

Before the promulgation of the above regulations, the provisional regulations fixed by the Ministry of Finance shall apply.

13. The Bank of China shall be entrusted by the Government to manage the affairs of the Government treasury and to raise or to redeem public loans.

14. The Bank of China shall be responsible for the circulation of the monetary system of the Government.

(*Continued on page 409*)

THE RAILWAYS OF TAIWAN (FORMOSA)

A LINE THROUGH THE CLOUDS

In a recent lecture upon Taiwan (Formosa) Mr. Uchida, the Civil Governor, gave a brief history of the work performed by the Japanese in the possession since the cession by China. The record was an extremely gratifying one, and the island evidently has progressed more in the eighteen years that have elapsed since the Japanese occupation, then it did in all the preceding centuries. It is interesting to note that the population of Taiwan is about 3,400,000, of whom 100,000 are Japanese, while 120,000 are aborigines. The remainder are Chinese, mostly from Canton and Fukien. The production of sugar is one of the main industries of the island and the amount turned out is some 500,000,000 annually. Very successful experiments in growing hemp and cotton and in sericulture have been made.

The harbour accommodation at Keelung and Takaw has been greatly improved. A comprehensive scheme of railway construction has been adopted and it is intended in this article to give a brief description of the work that has been done in this connection. It may be mentioned that the total mileage open to traffic up to August, 1912, amounted to 303.60 miles. These were made up as follows:—

The Main Trunk Line	247.30
The Tamsui Line	13.20
The Hozan Line	10.90
The Daito Line	22.40
The Arisan Line	8.80

In regard to the latter line, it was to have been opened for the entire length of 41 miles last month.

The 62 miles of rail between Keelung and Shinchiku had been constructed prior to the Japanese occupation, but after the cession, the Japanese Authorities practically relaid the track. The line was in the first instance put under the charge of the temporary Taiwan Military Railway Corps and later passed into the hands of the Civil Administration Department. In 1899, the temporary Taiwan Railway Construction Department was established, and this afterwards developed into the Railway Department of the Government of Taiwan. The Department has practically reconstructed all the old lines and has undertaken the entire management of the lines which had been more recently built.

In August 1899 it was decided to start the work of improving the main line already constructed and to construct a new line between Shinchiku and Takaw. This work was to be spread over 10 years and the sum of Yen 28,800,000 was appropriated for the purpose. Operations were begun at both the South and the North end. In view of the character of the country and the unsettled conditions, the Department is certainly to be congratulated upon finishing the whole line, and also the Tamsui and Hozan lines, by April 1908. The fact of railway communication being possible from the extreme North practically to the South of the Island has done a great deal, not only for the development of commerce, but also in the direction of pacifying the people.

The Daito line was projected for the purpose of developing the eastern side of Taiwan and is to connect Karenko and Bokusekikaku, a distance of 53 miles. The work was started in 1909 and was to be spread over 6 years. The amount appropriated for this construction was Yen 4,257,000. That portion of the line connecting Karenko and Hozan has been completed and opened to traffic, while the remainder is still under construction.

TAIWAN RAILWAY.—THE ARKO LINE UNDER CONSTRUCTION

TAIWAN RAILWAY.—THE MOUNT ARISAN RACK LINE

THE ARISAN LINE

The Arisan railway is one of most interesting lines in Formosa, and it might almost be said in the Far East. The line was undertaken by the Arisan Works Department of the Taiwan Government, and a well-informed critic observes that this mountain railway will elicit favourable remark from the engineering fraternity in many countries. The construction involved steep gradients, sharp curves, a picturesque spiral, and many tunnels and bridges. The entire railway, as already stated, will cover 41 miles, from Kagi to Mount Ari station (Nimandaira)—the latter point being 7,000 feet above sea level. From Kagi to Chikutoki, 9 miles, the grade is 1 in 50. From Chikutoki, Nimandaira is reached after a 32-miles zigzag climb up the mountains to 7,000 feet, the gradient being 1 in 20, or 5 per cent. Nearly the entire line (80 per cent.) is sinuous, the sharpest curve being 35 degrees. To reach Nimandaira the railway must circle a peak spiral fashion. The spiral construction begins at 1,824 feet and ends at an elevation of 2,500 feet. Between Kagi and Mount Ari there are 70 bridges, 73 tunnels, and almost innumerable cuts. The Rinnai or forest railway is 18 miles long, is tortuous, and has a gradient of 1 in 16. This railroad is called the Mount Arisan line, Mount Ari lending its name to the railway as well as to the giant forests that are the objective point of the undertaking.

IMPORTANCE OF THE LINE

The exploitation of the valuable forest of Mount Ari is no new enterprise. Years ago a private company surveyed a line and commenced constructing a road. But the undertaking was abandoned after futile attempts to interest private capital. Then the Government was approached to take over

TAIWAN RAILWAYS.—STATION GARDEN AT HOKUTO

TAIWAN RAILWAYS.—CUTTING ON THE ARISAN RAILWAY

the property of the private concern and carry forward the work. After considerable discussion in the Imperial Diet an appropriation of $2,450,000 was made in 1910 for the Mount Ari forest exploitation. Practically the operation and property of the private company were of no value, and the work was started anew. The most capable engineers of the Government are directing the construction, and difficult obstacles are being rapidly overcome.

Aside from the extension of the frontier lines, no undertaking by the Formosan Government is more important to the island's development than the Mount Ari enterprise. Not only is it an important undertaking, but it is a picturesque one. The traveller reaches Mount Ari station now by sedan chair with the clouds way below him; above him is scarcely any demarcation between earth and sky. When this altitude is gained he looks upon a magnificent primeval forest, some trees of which are 2,000 years old, 135 ft. high, 65 ft. in circumference at the base, 25 ft. at the capital, with no branch visible until a height of 45 ft. Such trees as the *Chamaecyparis obtusa* (Hinoki), red *Chamaecyparis* (Benihi), and oak, forming the three useful species, may be taken as the chief object of the sylvan industry.

At Kagi, where this line begins, there will be erected an American sawmill—the Allis-Chalmers Co., Milwaukee, having recently been awarded a contract involving $150,000. The Lidgerwood Manufacturing Co., of New York, is furnishing a log-handling apparatus at a cost of $25,000. The entire railway was to be finished by January, 1913 when logs would be delivered from the forests of Mount Ari to the American-built sawmill at Kagi.

The appropriation for the line was Yen 3,480,000 and the construction was to be spread over 3 years, but, as already stated, completion of the line was expected early this year.

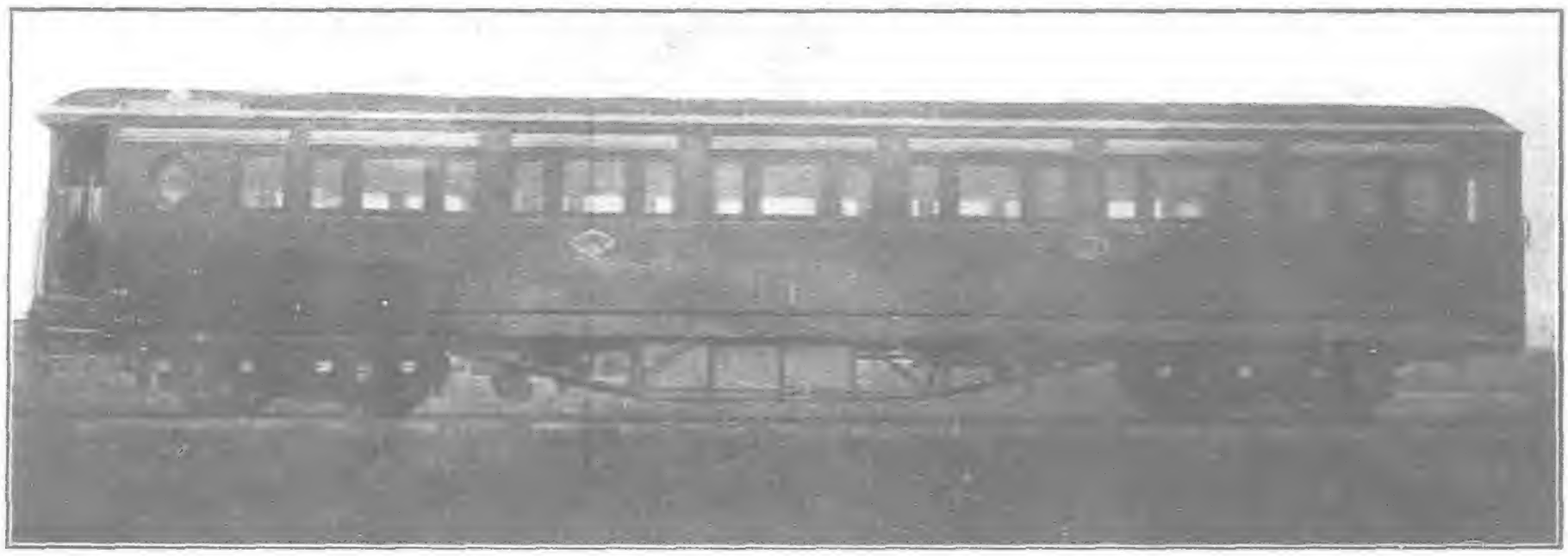
Extensions and Improvements

The extensions and improvements that are projected are as follows:—

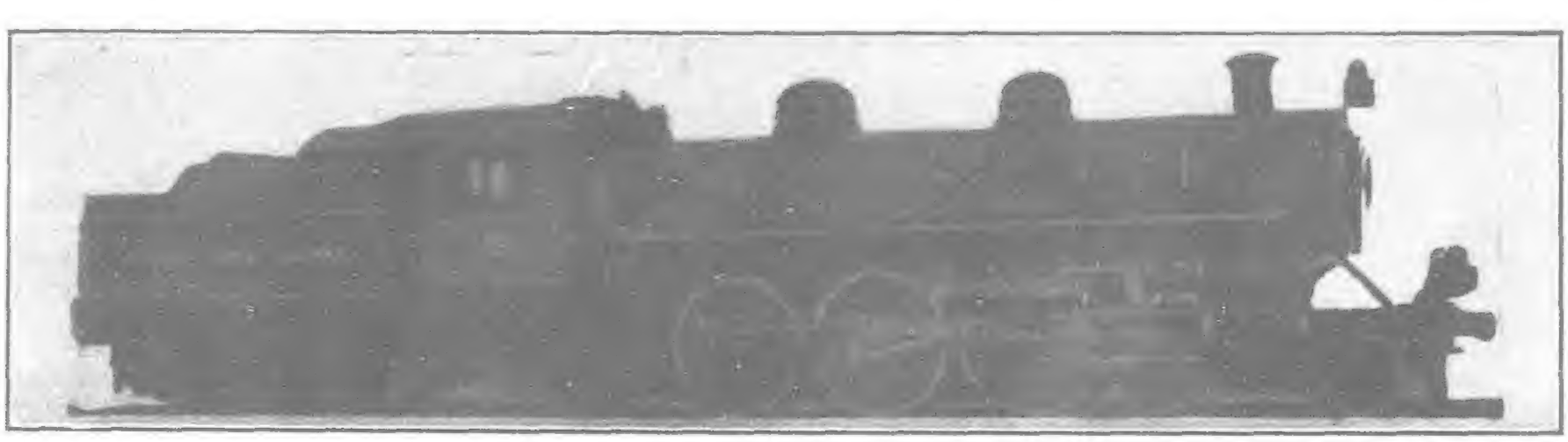
The extension of the main line from Kyukyokudo, the terminal point of the Hozan line, to Arko, the whole length of which is over 5 miles. The other line between Keelung and Taihoku (Taipeh) is to be improved by doubling the track. The appropriation for the former is Yen 2,300,000 which is to be spread over 3 years from 1911, and that of the latter Yen 1,026,200 which is to be spread over 3 years from 1912. Each of these works was commenced on the date arranged.

The traffic returns have made fair progress annually; for instance, the total revenue for 1911 was Yen 4,536,925 while the total expenditure for the same year was Yen 1,972,134, showing a profit of Yen 2,564,791.

The following is a table showing the revenue and the expenditure since 1908:—



TAIWAN RAILWAYS.—FIRST CLASS DINING CAR



TAIWAN RAILWAYS.—HIGH POWER PACIFIC (BALDWIN) LOCOMOTIVE

Year	Lines	Revenue	Expenditure	Profit (Loss marked×)	Income a day		Expenditure a mile		Average Profit (Loss marked ×)	
		Yen	*Yen*	*Yen*	*Y*	*S*	*Y*	*S*	*Yen*	*S*
1908	Main	2,715,829	1,449,226	1,266,603	27	342	14	590	12	752
1909	,,	3,301,045	1,559,444	1,741,601	33	336	15	748	17	588
1910	,,	4,053,214	1,732,767	2,320,447	40	931	17	498	23	433
	Taito	4,496	18,224	× 13,728	4	001	16	210	× 12	218
	Arisan	10,604	7,839	2,766	6	621	4	894	1	727
1911	Taito	19,983	80,048	× 60,065	3	940	15	783	× 11	842
	Arisan	24,629	22,338	2,291	7	647	6	936		711

NOTE:—By the main line is meant the line running lengthwise, Tamsui and Hozan lines.

LOCOMOTIVES AND ROLLING STOCK

The equipment is as follows:—

Locomotives	76
Passenger carriages	134
Wagons	1159
Total	1369

If classed by lines:—

Lines	Locomotives	Passenger Carriages	Wagons	Total
Main	70	127	1110	1307
Taito	4	3	35	42
Arisan	2	4	14	20
			Total..	1369

As an auxiliary means of communication, there are two light railways (hand car system) running between Horin and Pinan (86.8) and Kyukyokudo and Ako (4.4) making altogether 91.2 miles. Besides these, there are also private lines opened for public use, 168 miles, special service lines 429 miles, and private tracks (hand car system) 240 miles

The Railway Hotel is in Daihoku, the capital of Taiwan. It is under the management of the Railway Department, and is thoroughly equipped in every way on up-to-date foreign lines. The surrounding gardens contain collections of trees and flowers indigenous to Taiwan, many of which are in full bloom throughout the year.

TAIWAN RAILWAYS.—FIRST CLASS DINING CAR

THE CENTRAL BANK

(*Continued from page 406*)

15. The Bank of China shall have one Director, one Vice-Director, 9 members of Committee and 5 superintendents.

16. The Director and the Vice-Director shall be "Chien Jen" (Nominated by the President), and the Members of the Committee and the Superintendents to be elected by the shareholders' society.

Shareholders, whose shares are not above 50, shall not be elected as members of the Committee of Superintendents.

The above shall not be in force before 100,000 shares have been sold to the public, and the members of the Committee and the superintendents shall be appointed by the orders of the Ministry of Finance.

17. The periods of office: The Director and the Vice-Director, 5 years; the members of Committee, 4 years; and the Superintendents 3 years. These officers may be allowed to continue after the expiration of their respective periods

Within the period of their office, the Director and the Vice-Director shall not do other business besides the affairs of Exchange Bank and the Currency System.

Within the period of their office, the Members of the Committee and the Superintendents shall not be allowed to act as officers of other banks or companies.

18. The chief meetings of the shareholders of the Bank of China shall be two kinds as follows:—

(*a*) The ordinary shareholders' meeting.

(*b*) The provisional shareholders' meeting.

19. The ordinary shareholders' meeting shall be called by the Director once a year at the Head Office.

20. Should the Director think it necessary to discuss some important business he may call a provisional shareholders' meeting.

21. If the whole of the members of the Committee or the whole body of Superintendents, or more than 50 members of the shareholders' society with one hundredth of the amount of shares, request a meeting to discuss some important matter, a provisional meeting should be called.

22. A list of names shall be prepared 60 days prior to the meeting and the meeting can only be attended by the members who possess upwards of 10 shares.

23. In the meeting every member who possesses 10 shares shall be entitled to one vote: Above 100 shares each 50 shares shall be entitled to an additional vote.

24. When a member is unable to attend the meeting his representative shall be one of the members of the society.

The member who represents other members should not be allowed to cast for them more than 10 votes.

25. With reference to the forms used in filling reports, etc., by the Head, branch, sub offices and agencies the Bank of China shall request the Minister of Finance to fix them and to make detailed regulations of them.

26. If the Bank of China in its business should violate this law, or the regulations of the Bank, or have done anything contrary to the interest of the Government, the Minister of Finance shall interfere.

27. The Minister of Finance may appoint supervisors to supervise the affairs of the Bank.

28. The Bank of China shall according to this law draw out regulations which shall be decided by the Shareholders' society, and approved by the Minister of Finance. The same procedure shall apply in case of corrections, etc.

29. The regulations regarding the shareholders in this law shall take effect when 100,000 shares have been sold.

30. The law shall have effect from the date of promulgation.

REGULATIONS FOR COMMERCIAL BANKS

The following regulations regarding commercial banks have been presented to the Cabinet by the Ministry of Finance:—

(1) The bank notes issued by any bank shall not exceed sixty per cent. of its capital.

(2) Any banks that issue notes shall submit the bonds of Government Loans to the Ministry of Finance, and the amount of notes issued shall not exceed that of bonds submitted to the Ministry.

(3) The reserve of any bank shall be at least equal to a quarter of the notes issued and a quarter of the reserve shall be deposited in the Central Bank.

(4) The Government may put a limit to the issue of notes, beyond that limit no issue shall be allowed.

(5) In the case of bankruptcy the Government may sell the bonds submitted to the Ministry of Finance.

Regarding banks that have already issued notes, the following regulations shall apply:—

(1) Three months after the promulgation of the regulations governing the paper-notes the banks that have already issued notes shall inform the Ministry of Finance the total number of notes they issued; an amount of one-third of this number shall be paid in bonds of Government loans to the Ministry, which shall issue the same number of notes to the banks.

(2) Three months after the issue of this note, one-third of the old notes shall at least be exchanged back and submitted to the Ministry of Finance.

(3) Following the above system the other two-thirds of old notes shall be exchanged in one year.

MODERNIZING PHILIPPINE MUNICIPALITIES

PROGRAM OF THE AMERICAN GOVERNMENT IN THE ISLANDS INVOLVING INVESTMENT IN PUBLIC WORKS OF MILLIONS OF IDLE FUNDS

In the accumulations of the Philippine Treasury are a number of trust and other funds amounting to about P.16,000,000. For years the greater part was deposited in banks drawing a low rate of interest and, through those avenues, gaining circulation in the development of industry and trade. As the commercial and industrial interests became more and more on a solid basis, it was recommended that this money be withdrawn from deposit and utilized for loans to the provinces and municipalities for the construction of greatly needed public improvements, the lack of which served to impede sanitation, and that could not be accomplished from current revenues. The limit on bonded indebtedness of municipalities was also an obstruction, so that it was soon realized that unless the trust funds were utilized the greatly desirable program of improvement would have to be deferred indefinitely.

OLD AND NEW MARKET AT JARO, ILOILO

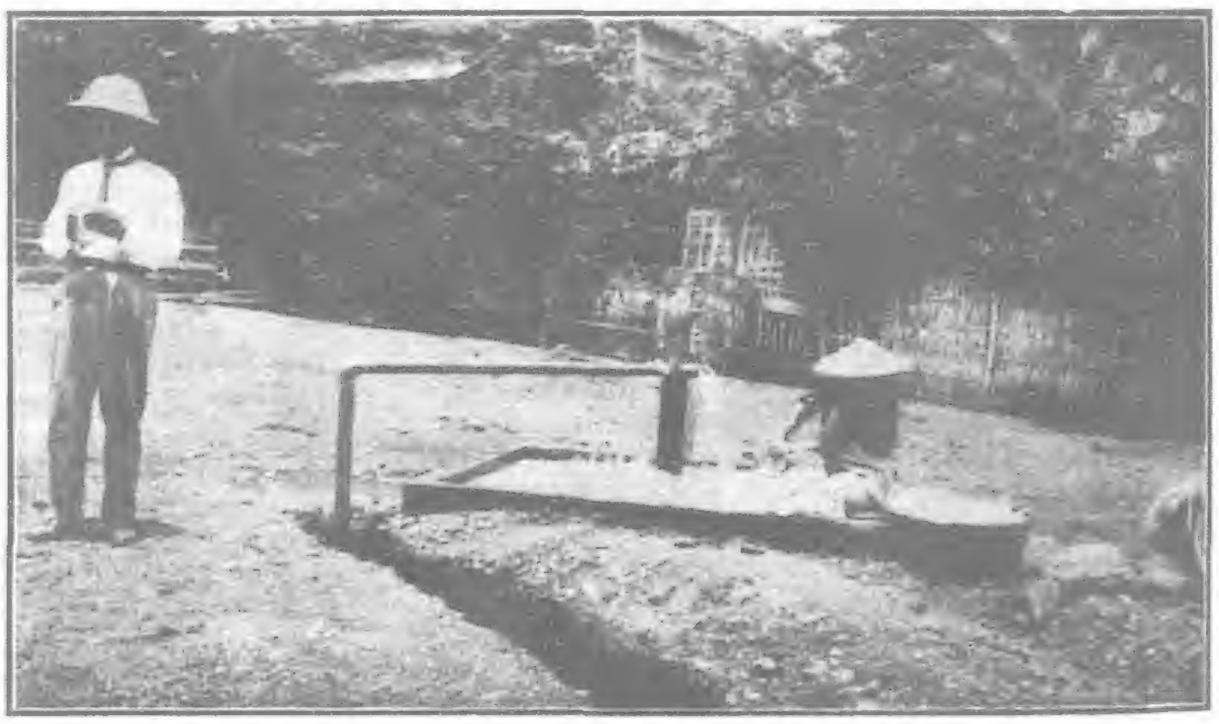
MARKET AT JARO, ILOILO

The result was that several million pesos of trust funds were made available and on June 30, 1911, P.1,345,000 had been loaned. At the end of the fiscal year, 1912, almost P.4,000,000 had been invested in public improvements in this form. At the end of 1913, including projects completed, under construction, approved, and investigated, there will be about P.10,000,000 involved. It will be noted that only necessary construction is considered such as desirable markets, water supply systems, artesian wells, sewer systems, school buildings, public bathing places, municipal buildings, etc. All construction under this heading is of reinforced concrete.

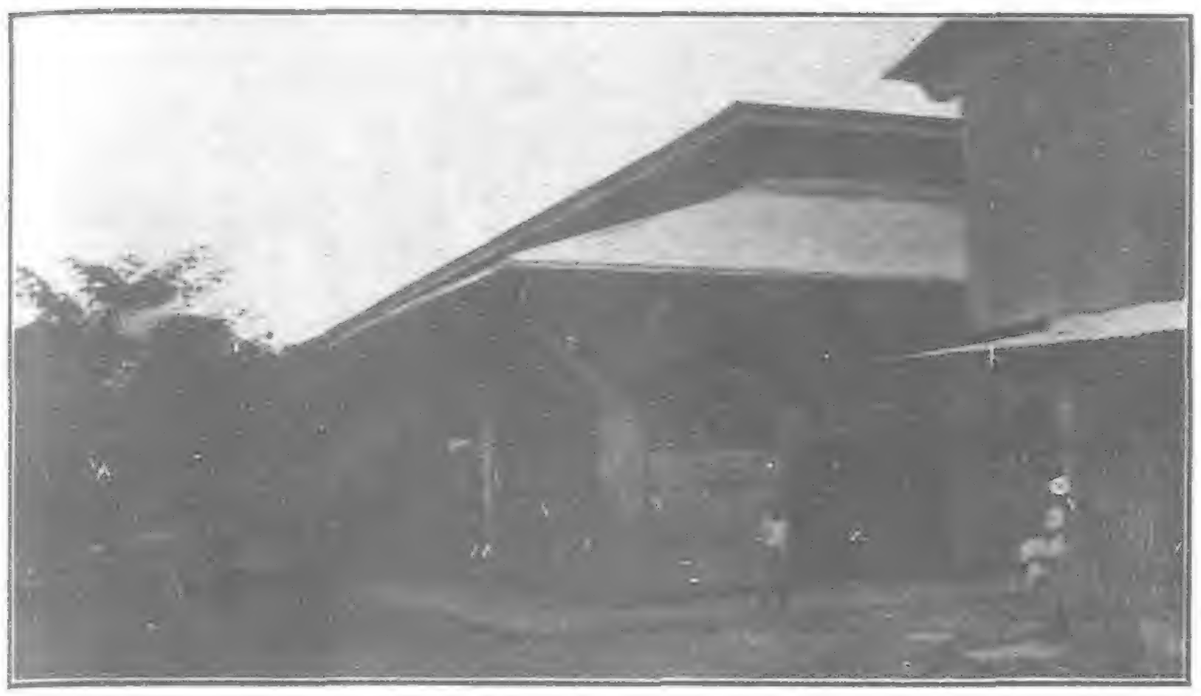
The annual report of the executive bureau for the fiscal year, ended June 30, 1912, reveals one of the most desirable and effective programs to the credit of the insular government. This refers to the loaning of trust funds to municipalities to help in the construction of permanent improvements at a low rate of interest. Reference is made to the success of the work and its bearing on the comfort, health, and moral development of the Filipino people. The results to date have been more than successful, they have fully justified the confidence reposed in the capacity of the Filipino to appreciate the benefits of good markets, good roads, pure water supply and better sanitation. And better than all, every obligation has been met and there is not a municipality affected that is not now enjoying a handsome profit from investment. Following is a review of the work now approaching gigantic proportions:

"The problem of financing the construction of municipal and provincial public works including particularly water supply systems, school houses and other necessary public buildings, sanitary markets, permanent bridges and roads, seemed in great part to have been provided for by the authority contained in the act of congress for the issue of bonds, but, in the practice it was found that rarely a project of immediate need and within the financial resources of the municipality concerned demanded a sum of money sufficient to warrant the expenditure of time of both the legislative and executive branches of the government necessary to authorize and to complete the other preliminaries incident to a bond issue, which in amount would be so small as to be of doubtful interest to investors in such securities. Accordingly in 1907 a beginning was made in financing these projects by the investment of trust funds which the insular government had on deposit with banks in the United States or in the vaults of the insular treasury, and which, by their nature, could not be required for a long period of years as in the case of sinking funds. These investment loans to provincial and municipal governments have been made only after careful examination by this office of the projects both from the standpoint of investment and from that of the public interest to be served. The necessary and duly authenticated documentary evidence of the indebtedness and of all conditions regarding expenditure of the loan and of the payment

OLD SANTA MARIA MARKET TO BE REPLACED BY A STRUCTURE OF REINFORCED CONCRETE



ARTESIAN WELL AT SANTA MARIA, BULACAN. FLOW 200 GAL. PER MINUTE



MARKET BUILDING, PAGSANJAN, LA LAGUNA

IMPROVED PLAZA, PAGSANJAN, LA LAGUNA

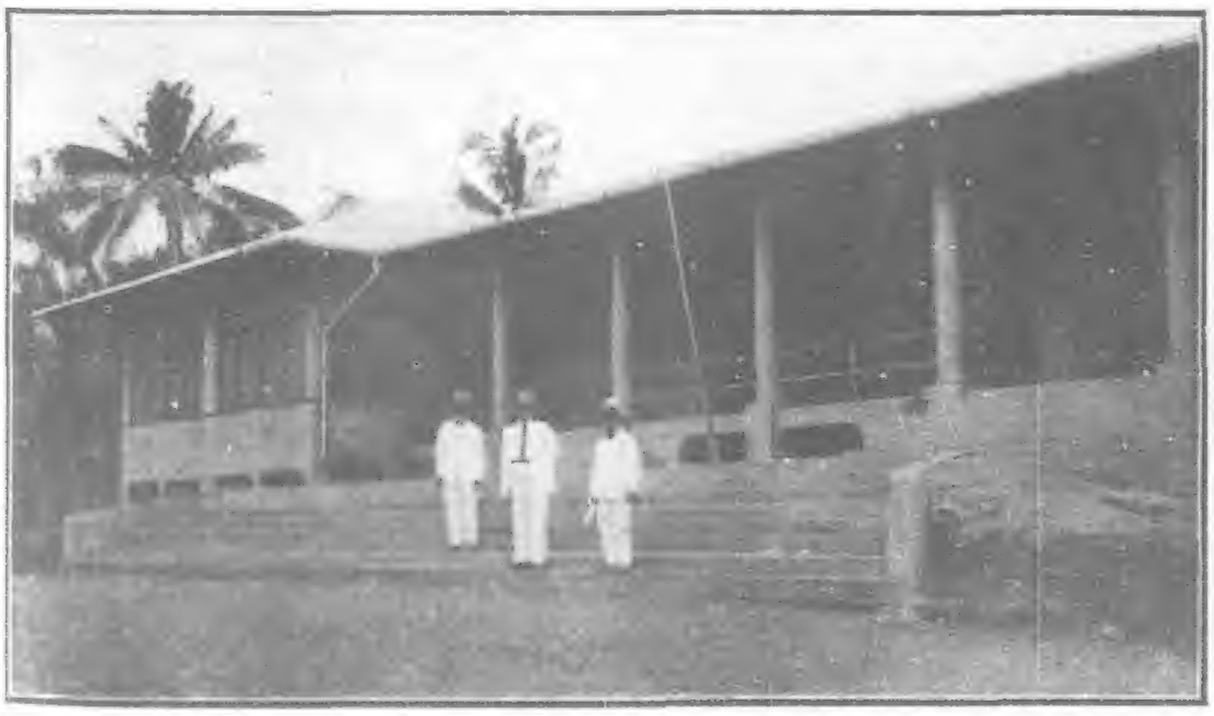
of interest and repayment of principal to the insular government, is executed in each instance before the funds are placed to the credit of the borrowing provincial or municipal government, and no precaution is omitted in each transaction which good business practice requires. In no instance has any default occurred in the payment of the interest (payable), or on principal account (annual payment).

"On July first, 1911, the total amount of loans to provincial and municipal governments was P.1,345,244.97. During the year new loans placed increased the total of these investments to P.3,795,079.94. This increase was made possible by the provisions of Act No. 2083 which authorizes the insular treasurer, with the prior approval of the governor general, to invest not to exceed fifty per centum of the gold standard fund "in loans for periods not to exceed ten years to provinces and municipalities to aid in the construction of public works, particularly those of a revenue producing character, at three per centum interest per annum." This made available approximately P.9,000,000, of which one half is temporarily set aside for construction loans to the Manila Railroad Company. Therefore, approximately P.4,500,000 became immediately available for loans to provincial and municipal governments. It is to be noted that loans from the gold standard fund may be made for periods not exceeding ten years, and the interest rate is fixed at three per centum. Special funds previously made available for such loans were limited to two years in the case of the insurance fund, and to five years for other funds, and the annual rate of interest at four per centum. It is apparent that the investment of the special funds of the government in these loans is productive of greater interest earnings than could ordinarily be obtained on fixed bank deposits and the requirements enforced in placing these loans make them quite as conservative investment as would be government bonds, which in effect their securities are. Upon the enactment of the statute making available a portion of the gold standard fund for investment as stated above, a representative of the executive bureau was assigned to the special duty of investigating each project for which loan application had been received and has been giving practically his entire time to this work in the field.

OLD MARKET AT ROSALIE, PANGASINAN; A NEW MARKET IS NOW BEING ERECTED

"Loans have been made to provincial governments in considerable sums to provide for the construction of permanent roads thereby advancing by from one to two years the progress of this work which is carried out in accord with the general scheme of the bureau of public works. These loans also were to a degree relief measures to provide employment for labor in those districts where the last rice crop was a partial or complete failure, and are payable within eighteen months from date of approval. Loans for the construction of bridges have been confined to those projects of great urgency and of concrete or steel construction to be executed by the bureau of public works. The cost of many of these projects will be less than the annual saving to the planters and merchants by reason of reduced cost of freight and passenger transportation by customary types of wheeled vehicles, and the consequent increased use of motor vehicles.

"Application for loans for road and bridge construction are taken up with the director of public works and his views are considered before definite action is taken by this office. Application for loans for erecting school buildings are similarly taken up with the director of education. Loans to municipalities for the construction of modern sanitary markets are given preferential consideration in accord with the terms of the statute authorizing loans from the gold standard fund, which requires that public works, "of a revenue producing character be given preferential attention." The public market in each city and village in these islands



MUNICIPAL BUILDINGS, PAGSANJAN, LA LAGUNA

INTERMEDIATE AND CENTRAL SCHOOL BUILDING, PAGSANJAN, LA LAGUNA

MUNICIPAL BUILDINGS, IFALAGUETE, CEBU

is an institution, the importance of which as a factor in the daily life of the people can hardly be understood without personal study on the spot.

"The greater number of the markets of the Philippine Islands have been of bamboo or wood and mat construction, without floor, and generally insanitary. The majority of them have been let by municipalities to contractors and the result naturally has been that the contractor bent all his efforts towards securing immediate profits, and practically nothing has been expended on the unkeep and sanitation of the market. The modern markets now being constructed are of reinforced concrete, with concrete floors and facilities for perfectly cleaning them. They are open on all sides and free ventilation is assured.

"Particular attention is given to the selection of sites for modern markets, a representative of the bureau visiting a municipality before the project is determined and aiding the municipal officials in their selection of a site and of the class of buildings best adapted thereto. Among the requirements for a market site are that it contain at least one hectare (2.471 acres) of land and have certain distinct boundaries and good drainage, and be so situated as to be convenient for both buyers and sellers. The general plan followed for market buildings provides for one or more central buildings from 12 to 30 meters in width and length suitable for the site, the main building being encircled by small bazar stalls or stores facing the central building. The buildings are constructed with concrete floors and pillars, trusses of wood or steel, and roofs of galvanized iron or tile. The stalls and stores are so arranged that they may be closed and securely locked. All entrances to modern markets are provided with iron gates, to be closed at night. In the markets of the old types persons renting space therein were permitted to use their stalls as dwellings. In the new markets no one but the caretaker may stay within the inclosure at night. It will be seen that this change in itself tends to better hygienic and sanitary conditions.

"A feature of modern market construction, second only to the expected improvement in general health conditions, is found in the increased revenue accruing to the municipality in every case where modern markets of approved type have been installed. In the case of San Pablo, Laguna, a loan was made to the municipality for the construction of a modern market which was opened to the public on June 8, 1910, and cost P.24,000. The receipts from the old market were P.2,160 per year. The receipts from the new market are at the rate of P.12,392 per annum, an increase of P.10,232 per annum, or 473 %. The increase in the annual income from the present market is 42% of the investment, and it will be noted that the municipality could repay the cost of the modern building, P.24,000, in two years, from the market receipts alone. The loan, however, was granted for ten years, and the municipality is now contemplating the installation of a water supply system estimated to cost P.85,000 for which a loan for a period of ten years will be granted. This loan can be repaid from the market receipts.

"The municipality of Angeles, Pampanga, in 1908 and 1909 received from its substantial old style market building an average annual revenue of P.4,091.00. In October, 1909, a new modern concrete market building, costing P.9,145.00 was opened to the public, and the market receipts for the following year amounted to $5,419.00, a gain of P.1,328.00 or 32%, in the annual market income. This gain constitutes a return of 14% on the money invested.

MODERN MARKET AT SUBAO, PUMP WITH ARTESIAN WELL

"In the municipality of San Fernando of the same province, receipts from the old style market for the year July 1, 1908, to June 30, 1909, amounted to P.3,590.00. On July 1, 1909, two modern reinforced concrete market buildings, costing together P.19,679.00 were opened to the public, and the receipts for the following year amounted to P.6,472.00, an increase of P.2,882.00 or 80%. This increase constitutes 14% on the investment.

"In 1906 the municipality of Pagsanjan, Laguna, received from its former market P.3,001.00. In November of the following year a new concrete market building, costing P.19,531.00 was opened to the public. The average market income for the subsequent four years was P.5,961.00 excluding 1910, when the market was rented by contract and but P.4,551.00 was received therefor. The increase in market revenues amounted to P.2,960.00, or 98%. This modern market is paying 30% on the money invested, and the increased revenue amounts to 15% of the investment.

"The municipality of Iloilo, province of Iloilo, has a modern reinforced concrete market, opened to the public on the fifteenth of January of the present year, which cost P.69,302. The average receipts from the former market for the years 1909, 1910 and 1911 were P.13,057. Receipts from the new market, based on collections from January fifteenth to June fifteenth of the present year, will be P.25,629, or an increase of P.12,572, 96% more that the revenue heretofore. The increased market earnings amount to 18% on money invested.

"These cases are typical. Increased market revenue means to the municipality an increased borrowing capacity which permits the erection of school houses, waterworks, municipal buildings, the construction of first class streets and bridges, and other improvements; the payment of adequate salaries to teachers in primary schools; and other advances in municipal public service.

"It is the intention, when nearby towns have recognized market days, to encourage the arrangements of the daily markets in such order that it will be possible for producers to make regular rounds of the markets from town to town. With the many first class roads now being completed throughout the provinces, this will gradually build up arteries of trade and the general prosperity of the country will inevitably increase.

"An important feature of the municipal market is its effect on the economic conditions of the people as a whole. It is the expressed opinion of many uninformed persons that even the local trade of the Philippine Islands is in the hands of persons other than Filipinos, and that the Filipino has neither the business capacity nor the desire to take into his own hands the trade of his country. That this is untrue becomes apparent to any observer of conditions in municipal markets, in some of which, in the province of Iloilo, the daily sales amount to as high as P.20,000.

Practically the entire business of the markets is conducted by Filipinos.

"The largest municipal water supply system outside of the city of Manila is the Osmeña waterworks system of Cebu, which was formally opened on February 13, 1912, and much serious interest has been aroused in other municipalities in securing potable water for domestic use either from artesian wells or by

NEW MARKET AT ARAYAT, PAMPANGA

NEW MARKET, LIPA, BATANGAS

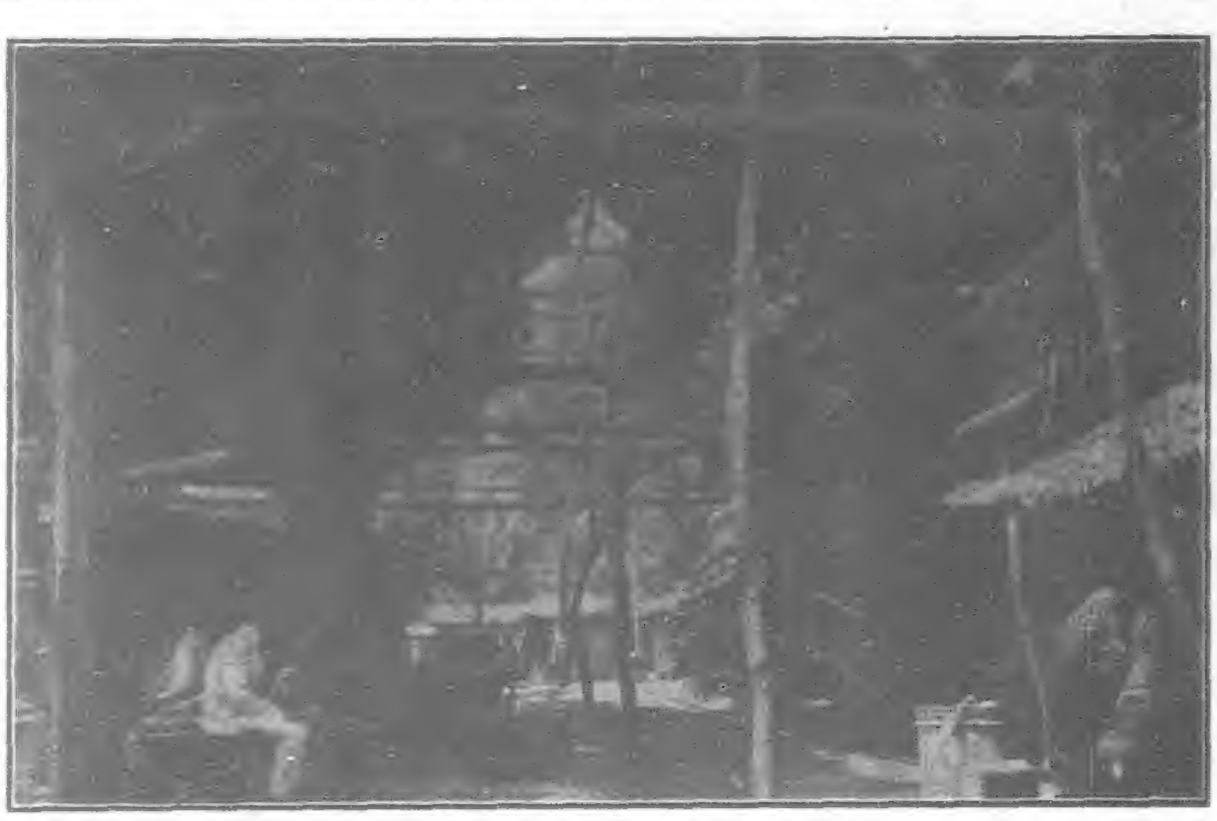
OLD MARKET AT LIPA, BATANGAS

gravity supply from streams or springs on the adjacent mountains or foothills. The advantages resulting from the standpoint of public health, low insurance rates, and in many other ways are so obvious that discussion of the desirability of devoting public funds at the earliest possible date to the supply of potable water seems quite unnecessary. One instance of the immediate financial values of an adequate water supply for reducing the fire risk, however, is so significant that it seems worthy of mention: the case of the municipality of Cebu where during the past ten years the total loss of buildings and contents burned is estimated at P.10,000,000, and during that period insurance rates increased from two and four-tenths per centum to three and five-tenths per centum and some insurance companies withdrew entirely. It is estimated that the saving to property owners in fire insurance premiums by reason of reduced rates once the new water system is in full operation will approximate P.100,000 per annum. The total cost of installing the water supply was P.550,000, and the cost of operation will be nominal.

In the report of the bureau of public works will doubtless be found detailed data regarding the Osmeña waterworks and other projects constructed and under construction during the year.

"The great facilities now at the command of the governor general for the execution of permanent improvement projects have afforded opportunity for the undertaking of systematic effort in those phases of municipal improvement which come within the class of public works as distinguished from political administration. There is in process of formation in this office a section which will devote itself to the encouragement and assistance of municipal governments in the formulation of a definite program for the location and construction, as funds become available in future, of public buildings, layouts for streets, playgrounds and other public places of proper areas and locations. It is hoped that in addition to the material results for which direct effort may be made there will be distinct betterment in the general efficiency and tone of municipal administration and urban life as results from the direct pursuit of which the insular and provincial governments are to a great degree inhibited by the autonomy granted to municipalities by organic law under which they are constituted.

"Through the kind offices of the bureau of insular affairs, there has been obtained and arrangements made for continuing to secure the best literature available on the subject of municipal betterment in the United States and in Europe. Decided interest is evidenced already in many municipalities and the circulation of periodicals and other literature pertinent to the subject is beginning to attract attention. Each provincial treasurer (the officer having immediate supervision of provincial finance) and many municipal treasurers now receive periodicals, etc., devoted to the subject under discussion. With the present trend it seems reasonable to believe that relatively as great interest will soon be taken in these islands in the improvement of municipal government and civic progress as in other countries of the civilized world. The hope for positive results necessarily must rest with the younger generation and therefore the constant effort of this office is to co-ordinate its work with that of the public schools and also to enlist the interest of the element which is just entering into political activities and will soon control public affairs in the municipalities."



MAIN MARKET BUILDING, IFALAGUETE, CEBU

THE BOXER INDEMNITY

As the Boxer Indemnity is the stick upon which Russia has seized to beat China into submission with regard to the demands of Russia in Mongolia, it is interesting to note how the Boxer Indemnity of 450,000,000 Haikwan Taels is split up among the foreign countries. The largest amount of the Indemnity goes to Russia, who, roughly speaking, takes 29%.

At the beginning of this year, China was fourteen months in arrear. The total amount due on January 1st was £3,472,000. China's financial distress prevented her from meeting this obligation. She trusted that the Big Loan would be agreed to, when she expected to have funds available not only to liquidate her debts, but also to carry out essential re-organization work. The failure to come to a settlement with regard to the loan, in conjunction with the failure of the Provinces to forward contributions to the Central Government, completely embarrassed the Treasury. There were no funds to meet the foreign liabilities, and, even for local needs, the cupboard was as bare as the famous one of nursery rhyme.

Russia, pressing for recognition of her questionable claims in Mongolia, was prompt to take advantage of the misfortunes dogging the steps of the New Republic. Russia demanded that she must have her portion of the Boxer Indemnity immediately. China previously, on December 20th to be exact, had written a note to the Ministers of various foreign countries interested in the Indemnity requesting an extension of time for the payment of the Indemnity. It is interesting to note that no Legation replied to that request, but left it to be understood that the necessary assistance would be given China in overcoming her difficulties, even Russia overtly made no difficulty until towards the end of January when she commenced to put on pressure. The following table shows the manner in which the indemnity is divided:—

	Proportion per cent.	Haikwan Taels		Foreign currency
Germany	20.015 67	90,070,515	Mks.	278,166,423 93
Austria-Hungary	0.889 76	4,003,920	Kr.	10,394,092 40
Belgium	1.885 41	8,484,345	Fr.	31,816,293 75
Spain	0.030 07	135,315	Ps.	507,431 25
United States	7.319 79	32,939,055	Dol.	20,440,778 81
France	15.750 72	70,878,240	Fr.	265,793,400 00
Great Britain	11.249 01	50,620,545	£ S.	7,593,080 19
Portugal	0.020 50	92,250	£ S.	13,837 17
Italy	5.914 89	26,617,005	Lire.	99,803,768 75
Japan	7.731 80	34,793,100	Yen.	48,950,891 70
Holland	0.173 80	782,100	Fl	1,404,651 60
Russia	28.971 36	130,371,120	Rs.	180,084,021 44
Norway and Sweden	0.013 96	62,820	£ S.	9,423
Sundry	0.033 26	149,870	£ S.	22,450 10

SHALLOW DRAFT RIVER BOATS

By C. B. STEVENSON

The Ohio River is the home of the shallow draft boat. There is no other stream or body of water where they form so important a factor in navigation, and any one not entirely familiar with conditions on the Ohio would be much surprised at the great number of these boats in use there. The fact that the river is very shallow for a considerable part of each season forces the majority of steamboats to tie up and leaves practically all river traffic to the small gasoline-propelled boats. And even when there is water enough for the big boats, the gasoline craft cut into the commerce and handle a great deal of freight, because they are able to make lower rates on the short trips. Their operating expenses are much lower, both for fuel and handling.

"PRIDE OF VIRGINIA" MAKES A WEEKLY TRIP OF 320 MILES, WITH 50 TO 100 TONS OF FREIGHT. IT IS PUSHED BY A GASOLINE BOAT POWERED WITH A 20 H. P. FAIRBANKS-MORSE ENGINE

These boats vary in size, but most of them are between 50 and 100 feet in length. The draft of a boat of this type, of average size, will usually be about 20 inches when fully loaded. The larger boats are responsible for the disappearance of the picturesque small steamboats from the river. They do towing (which is really "pushing" on the Ohio, as all barges and boats are pushed ahead of the tow boat), gather provisions, merchandise and junk. They carry the mails, do ferry service and make regular packet runs. Smaller boats engage in clam shell gathering, light towing and kindred occupations.

The general type of shallow draft boat most frequently seen on the Ohio would probably look very crude to a person not acquainted with the conditions, but it has been found by much experience to be the most satisfactory and best adapted to the work. Tunnel propeller boats have been built and run with more or less success, but the prevailing method of propulsion is the stern paddle wheel. This type handles the boat much better in narrow places, and especially in backing. The type of engine in use in many of these boats forms the unexpected and incongruous part of the outfit. A number of the shallow draft boats on the Ohio River are propelled by engines of the stationary type driving the wheel through long belts and counter shaft, with sprockets and chain from this shaft to the wheel itself. Where cabin space is not important, as on boats used entirely for freight or towing, this kind of an engine and equipment gives entirely satisfactory service. Where cabin space is an object, the boats are powered by engines of the marine type, with a gear drive to the wheel. Boats used for carrying passengers, and thus equipped, frequently reach a speed of over 12 miles an hour.

With either of these types of equipment the whole mechanism of the boat is extremely simple, and, as a result, extremely effective for shallow water. The only part of the equipment requiring attention is the engine, and the engines in the great majority of these boats have proven themselves to be very easy to handle and reliable in every way.

"KATYDID," OWNED AT BELLVILLE, W. VA. USED AS A PACKET BETWEEN LONG BOTTOM AND PARKERSBURG. HAS 25 H. P. FAIRBANKS-MORSE ENGINE. NOTE STYLE OF HULL. THIS IS AN OLD ONE, REMODELED UNTIL IT IS BEST SUITED FOR OHIO RIVER USE. THERE IS A LARGE CABIN OVER THE MACHINERY AND BELTS, GIVING MORE ROOM THAN IS POSSIBLE WITH ANY OTHER STYLE. THE GUARDS ARE WIDE ENOUGH TO PERMIT STORAGE OF FREIGHT

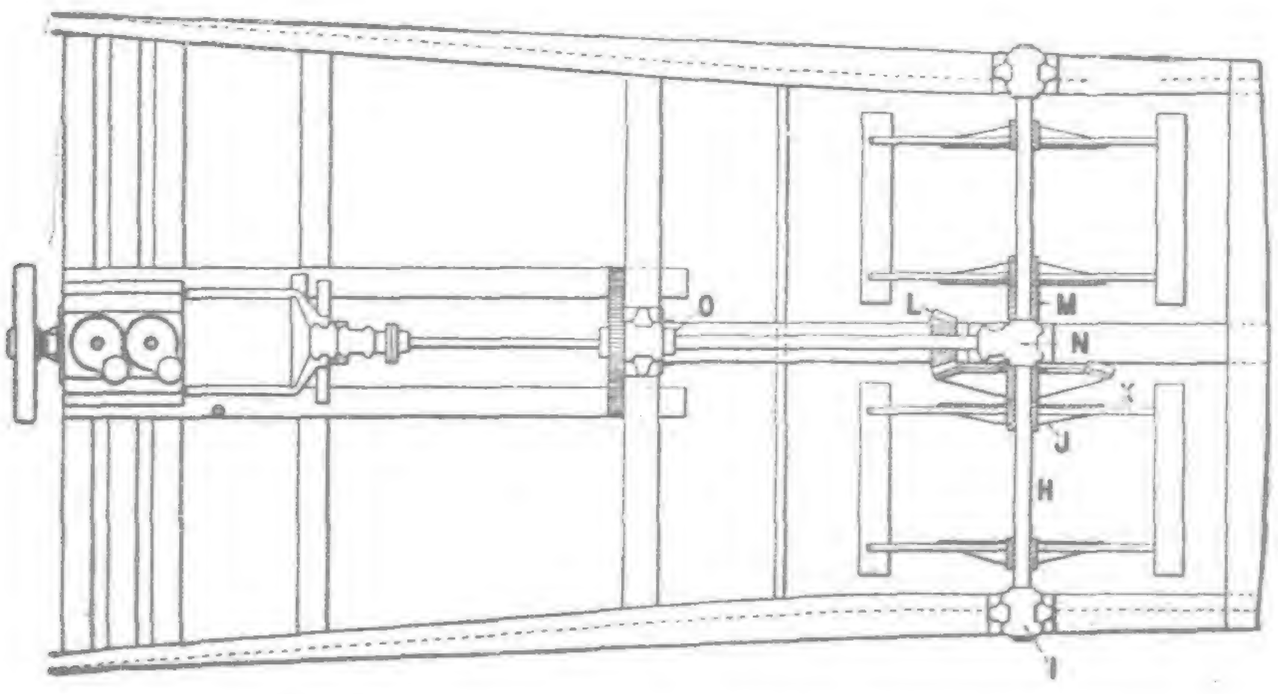


FIG. ME2431. BEVEL GEAR STERN WHEEL DRIVE

H—WHEEL SHAFT
I— ,, ,, END BEARINGS
J— ,, SPIDERS
K— ,, SHAFT BEVEL GEAR
L—COUNTERSHAFT BEVEL PINION
M—WHEEL SHAFT COLLAR
N— ,, AND COUNTERSHAFT COMBINATION BEARING
O—COUNTERSHAFT THRUST COLLAR

The speed reduction between engine and wheel is accomplished in various ways. Usually, where the stationary type engine is used, two belts drive a shaft fitted with tight and loose pulleys. One belt is crossed; the other runs straight. Usually the crossed belt is used for "go-ahead," because of its greater traction on the pulleys, and the straight one for the reverse. This shaft drives the wheel through sprockets and a roller sprocket chain. With boats driven by marine engines, the reduction is usually by gears to a jack shaft and by chain or gears from there to the wheel. A 60-foot boat of this type, with one or two barges, will handle hundreds of tons of freight at a trip. They require no wharf for landing, and hence can pick up a cargo anywhere. Usually two men handle them, and there is no necessity for either of these to have passed the severe examination which a steamboat engineer must stand.

One make of engine, both in marine and stationary types, has proven itself so satisfactory for these boats that between Pittsburgh and Cairo over 80% of the boats are fitted with them. The makers of these engines—Fairbanks, Morse & Co. of Chicago—have every reason to be proud of the record their product has made in this service. Many of these

A—ENGINE
B— ,, SHAFT EXTENSION
C— ,, ,, ,, BEARING
D— ,, ,, PINION
E—COUNTERSHAFT GEAR
F—COUNTERSHAFT
G— ,, BEARING, GEAR END

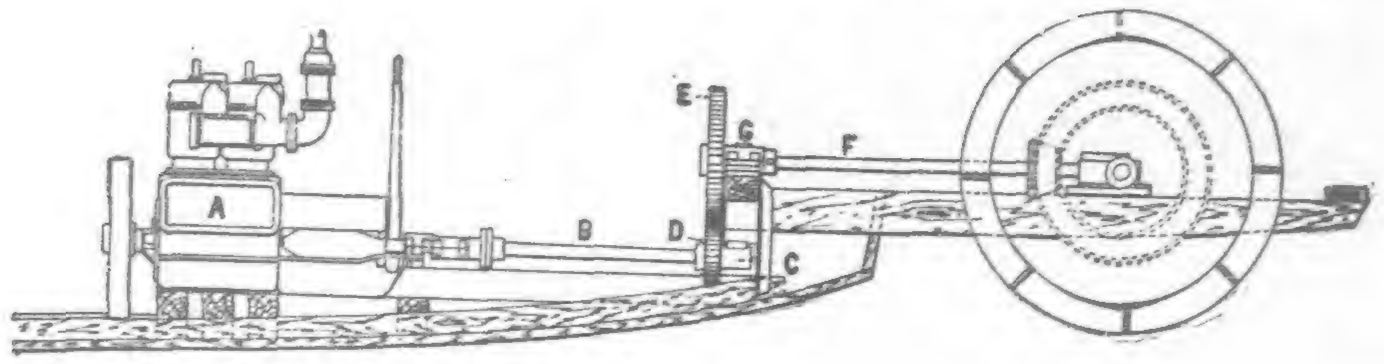


FIG. ME2432. GEAR DRIVE

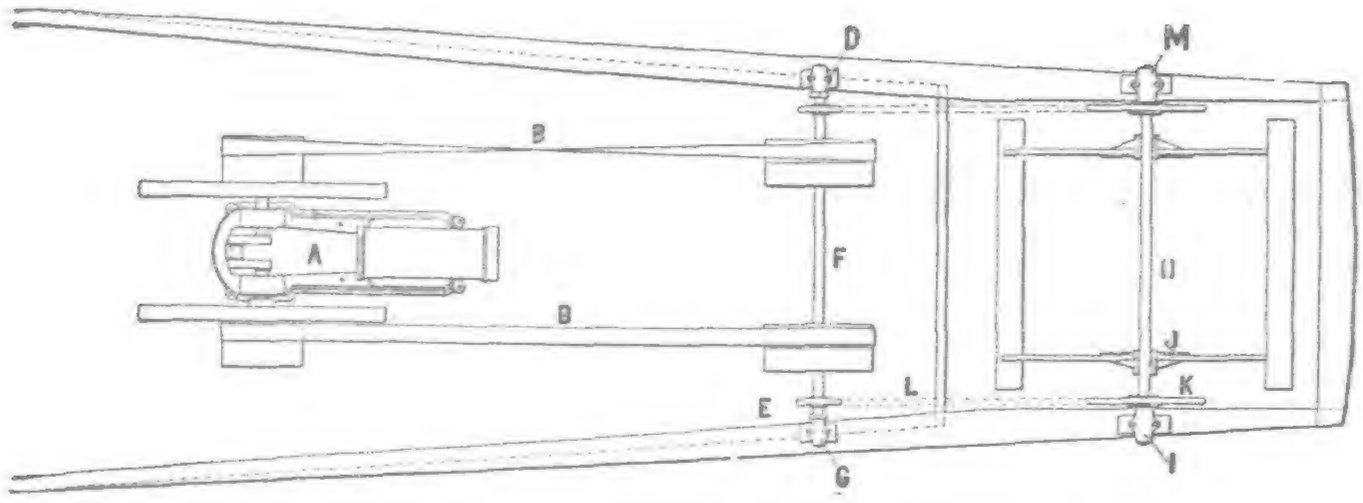


FIG. ME2435. BELT DRIVEN STERN WHEEL DRIVE

A—ENGINE
B—BELTS, STRAIGHT AND CROSSED
C—TIGHT AND LOOSE PULLEYS
D—COUNTERSHAFT COLLAR
E— ,, SPROCKET
F— ,,
G— ,, BEARINGS
H—WHEEL SHAFT
I— ,, ,, BEARING
J— ,, SPIDERS
K— ,, SHAFT SPROCKET
L—SPROCKET CHAIN FROM COUNTER TO WHEEL SHAFT
M—WHEEL SHAFT COLLARS

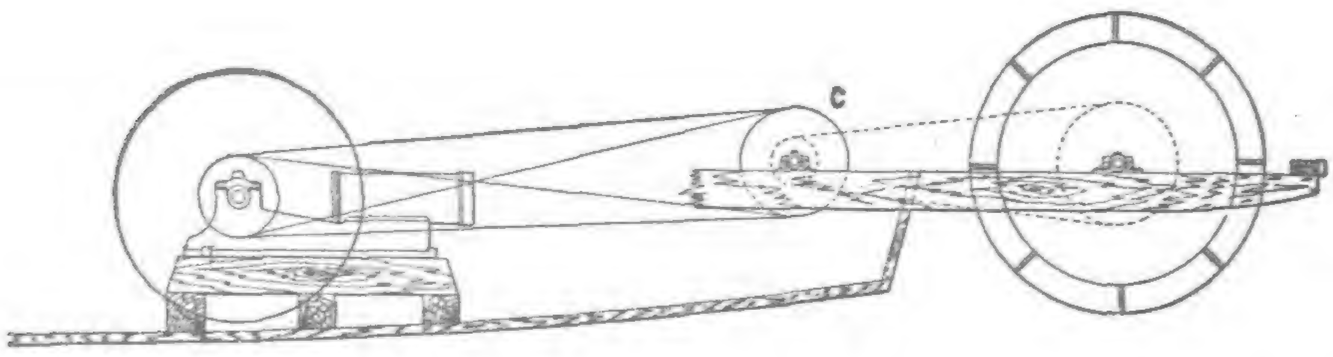
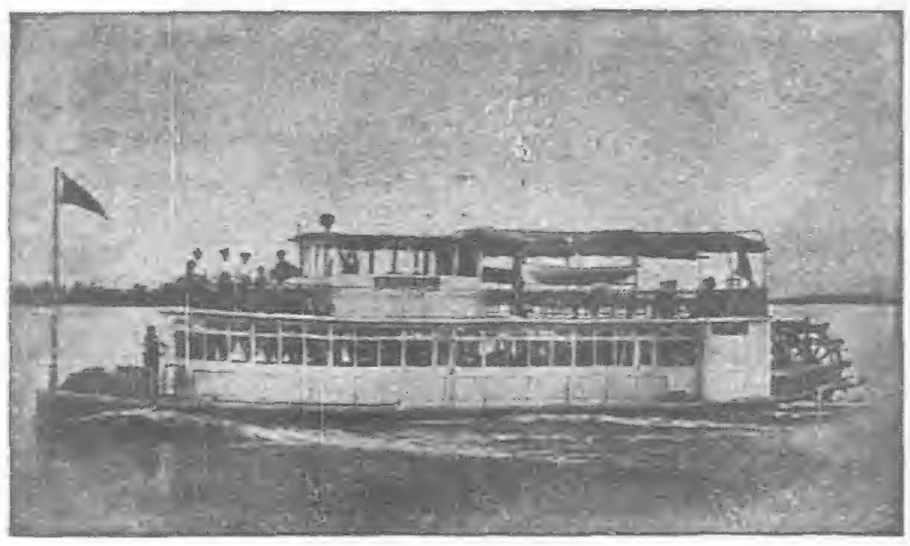


FIG. ME2436. BELT AND SPROCKET CHAIN DRIVE

"JEFF HICKS," OF PINE BLUFF, ARK. 40 H. P. FAIRBANKS-MORSE OIL MARINE ENGINE HAS REPLACED THE OLD STEAM ENGINE



"LOUISE," 67×12 FEET, ST. LOUIS, MO. 40 H. P. FAIRBANKS-MORSE HEAVY-DUTY GASOLINE MARINE ENGINE, OPERATING STERN PADDLE WHEEL THROUGH WORM GEAR AND CRANK CONNECTION. PADDLE WHEEL WITH TWELVE 10-INCH BUCKETS. SPEED, 12 MILES PER HOUR. FAIRBANKS-MORSE ELECTRIC LIGHT PLANT USED TO OPERATE SEARCHLIGHT AND GENERAL LIGHTING SYSTEM

engines have given years of service and still do satisfactory work. So durable are they that some of them have been in service over fifteen years.

The engines installed by Fairbanks, Morse & Co. (whose Shanghai agents are the China General Engineering Co.) in these boats are of various sizes from 10 to 60 horse power, depending, of course, upon the size of boat. Regardless of type or size, they universally give splendid service. They are furnished to operate on the low grade fuels and many of these boats recently equipped are running on kerosene or the low grade distillates. This means a further reduction in fuel cost and is an added inducement for increase in the number of boats and the amount of business handled.

"AMERICAN BEAUTY," "MAGNOLIA," AND "PANSY," PART OF FLEET OWNED BY G. W. DUNBAR'S SONS OF NEW ORLEANS. EACH 60 × 15 × 3½ FEET, EQUIPPED WITH 30 H. P. HEAVY-DUTY FAIRBANKS-MORSE GASOLINE MARINE ENGINES. USED FOR TRANSPORTING SHRIMP FROM THE FISHING GROUNDS TO CANNERIES

It seems probable now that gasoline-propelled, shallow draft boats will ultimately handle all the river commerce on the Ohio. They are increasing rapidly and they are crowding the steamboats out because they are able to give service equally as good at considerably lower cost. It is merely another example of the "survival of the fittest."

FAR EASTERN RAILWAYS

CHINA

Shanghai-Nanking Railway

The following figures of traffic returns (approximately) for the week ended January, 25 are issued by the Shanghai-Nanking Railway:—

Year.	Passengers.	Goods and Sundries.	Total for the week.
	$	$	$
1913	50,314	10,500	60,823
1912	44,452	4,625	49,077
Increase	5,862	5,884	11,746
Decrease	—	—	—

For three weeks.

Year.	Passengers.	Goods and Sundries	Total
	$	$	$
1913	174,397	35,899	210,296
1912	180,848	16,646	207,494
Increase.	—	9,253	2,802
Decrease	$15,451	—	—

For the week ended February 1:—

Year.	Passengers.	Goods and Sundries	Total for the week.
	$	$	$
1913	55,914	7,830	63,744
1912	50,601	5,809	56,410
Increase.	5,313	2,021	7,334
Decrease	—	—	—

For four weeks.

Year.	Passengers.	Goods and Sundries	Total
	$	$	$
1913	230,311	43,729	274,040
1912	240,449	23,455	263,904
Increase	—	20,274	10,136
Decrease	10,138	—	—

For the week ended February 8:—

Year.	Passengers.	Goods and Sundries.	Total for the week.
	$	$	$
1913....	41,072	3,163	44,235
1912....	53,371	5,553	58,924
Increase.	—	—	—
Decrease	12,200	2,390	14,689

For five weeks.

Year.	Passengers.	Goods and Sundries.	Total.
	$	$	$
1913....	271,383	46,892	318,275
1912....	293,820	29,008	322,828
Increase.	—	17,884	—
Decrease	22,437	—	4,553

For the week ended February 15:—

Year.	Passengers.	Goods and Sundries	Total for the week.
	$	$	$
1913....	46,732	6,514	53,246
1912....	54,982	4,009	58,991
Increase.	—	2,505	—
Decrease	8,250	—	5,745

For six weeks.

Year.	Passengers.	Goods and Sundries.	Total.
	$	$	$
1913....	318,115	53,406	371,521
1912....	348,802	33,017	381,819
Increase.	—	20,389	—
Decrease	30,687	—	10,298

The Hunan Line.—It is reported that some progress in the negotiation for a British loan of Tls. 10,000,000 between the Hunan Railway authorities and the China Development Corporation seems to have been made. The money is needed for the building of the railway from Chengchow to Ch'angteh, in Hunan. An Englishman has left Shanghai for that province to make a personal inspection of the line in question. If he should find it as described to him Tls. 4,000,000 will be paid over as a first instalment on his return.

The New Railway in Kwangtung.—The railway, built by Chinese engineers, and financed by the Chinese themselves, which will join Pak Kaai, the great port on one of the largest branches of the Canton river, to Hongkong by river steamer, has pushed its way some tens of miles further towards completion, and it is now opened for traffic as far as the city of Kongmun, which is only three miles from Pak Kaai.

Hsuchowfu-Tsingkiangpu Line.—It is understood that a party of engineers, Chinese and foreign, left Shanghai recently with northern Kiangsu as their objective. The visit is in connection with the projected railway from Hsuchowfu to Tsingkiangpu, and it is reported that their intention is to make the necessary purchases of land for the line if this can be done.

Szechuan-Hankow Line.—In Chengtu a public meeting has been held by the sharcholders of the Szechuan-Hankow railway The shareholders decided to utilize their funds for the construction of lines in connection with the main line.

By the order of the Ministry of Communications Mr. Chang Li-ken has been despatched to institute a survey and an estimate of the railway between Shasi and Ichang: Mr. Tuan Mu and others are to construct the branch lines from Pinghsiang to Chang-shu-tung.

The Hukuang Line.—A correspondent writes to the *China Mail* from Canton as follows:—We hear that another section of the Canton-Hankow Line has been opened and to-day it is possible to get as far as Yingtak. There was some delay and difficulty in laying this line along the pass known as the Blind Boy's Pass, because the track was very rocky, and there was some tunnelling to be done. But whilst work went on slowly here, farther on, the line was pushed forward, so that when this difficult section was conquered, little delay was expected, and so it has turned out. Unfortunately the station at Yingtak is some distance away from the city. It appears that the west river—that is a branch of the North River, not the West River—is the cause of this. In other words, the line had to cross this river, and near the mouth, which is just opposite the district city, the river was too wide to be bridged. At any rate it was found to be much easier to run the bridge across farther up the stream, and so the line was carried along some distance from the city. Reports affirm that already the line is popular, and those who aforetime went by boat, and were compelled to creep along, are now able to go at a great speed, by comparison, though at present probably the fastest train does not travel more than from fifteen to twenty miles per hour. The report of the opening of this section of the line goes on to say that before the year has run its course the line will be opened all the way to the district city of Shiu Chow. Much of the track is already laid, and it remains only to link up these several sections, whereupon there will be a direct track from Canton to that district city.

A Chenchow correspondent wrote on December 18:—Mr. Dees and his party of 300 have passed through Chenchow on the survey of the Canton-Hankow railroad. From here the party goes to Kweiyangchow and down the Kwei River; there is some prospect that the railway will follow that river instead of the Lei; in any case the road will come to Chenchow, and that is a source of great satisfaction to all here.

Earnings of Chinese Railways.—According to the *Sinwanpao* the total earnings of the different Chinese railway lines were as follows:—

Railway Lines:—	$
Peking-Mukden	13,000,000
Peking-Hankow	12,400,000
Peking-Kalgan	2,800,000
Tientsin-Pukou.....	4,000,000
Shanghai-Nanking	2,600,000
Honan-Loyang	700,000
Kowloon-Canton	600,000
Chênting-Taiyuan	2,400,000
Tao-ching Railway	500,000
Kirin-Changchun	200,000
Chuchen-Pinghsiang	270,000

The Lotung Railway.—The first section of the Lo-tung Railway from Lo-yang to Tieh-men having been completed, the Director of the said Railway has arranged to run daily passengers and goods trains between these two stations, a distance of 100 Chinese *li*. The Lo-tung Railway Company, having decided to bring about the whole line to completion with the least possible delay, 480 *li* in all, has now employed additional staff in the Engineering Department. The Chief Engineer Mr. Hsu Wen-chong, may be remembered as the builder of the Kiangsu Railway, which was opened to traffic 3 years ago.

The *Asiatic News* reported early in February that there being deficiency of funds the Lo-tung Railway Company requests permission to contract a loan of £500,000 with a certain company in Tientsin.

Yeungkong-Kongmoon Line.—The progress of this line is being retarded by a quarrel about a bridge over the river between Sanui and Kongmoon. There has been a good deal of delay over the building of this structure, and the train does not run any farther than Kongmoon city, which is some four or five miles away from the terminus; that is, the Customs Station at Kongmoon. The river runs through this section. An influential body of men signed a petition, and sent it in to Headquarters, Canton, asking that the bridge be not allowed, but the reply was that the company was to see to it that the work of constructing the bridge was put through at once, for it is too late in the day to let the prejudices of the few in the vicinity hinder this important work.

The Lung-Tsing-U-Hai Line.—The Belgian Honanfu-Kaifengfu Railway Bonds were to be issued in Belgium on February 18. One million francs bargain-money was to be paid over to the Chinese Government simultaneously. China will use this amount to purchase the portions of railway near Honanfu which are being built by private enterprise.

MANCHURIA

Hsinmintun-Fakumen Light Line—Governor Chang-hsi-lan is said to have been authorized to build a light rail line for military use between Hsinmintun and Fakumen. Engineers have been sent out to start a survey of the proposed line.

Kirin-Hailungcheng Line.—Mr. Chi-shih-min, chairman of the Kirin Industrial Guild, has mooted the project of constructing on share capital a railway from Kirin to Hailungcheng via Panshih-hsien. He is reported to have succeeded in inducing Chinese capitalists in the South Seas to subscribe to two-thirds of the required capital. All that is left to be done is to raise the remaining third locally, and when this sum is raised, which is, however, considered no easy task in view of the prevailing stringency in the money market, the promoters intend to start work without delay.

South Manchuria Railway.—January, 1913, was the most prosperous month for the S. M. Railway. The traffic receipts alone averaged Y.87,748 per day, being an increase by Y.1,108 over those for the corresponding month of last year. The average mileage receipts reached Y.126½ per day. Owing to the Chinese New Year Season, the returns for the last decade of January showed a slight decrease, gaving a daily average of Y.81,866, which was, however, still larger than the corresponding period of last year by Y.1,162.

JAPAN

Tokaido Double Line.—A dispatch from Nagoya says that the construction of the iron bridge with the double line over the River Kiso having been completed the section will be put into active use for traffic immediately. Now the only section with the single line on the Tokaido line left is the iron bridge over the river Tenryu. But as the bridge over the river Tenryu is expected to be completed this March the whole of the Tokaido line will be doubled in the near future.

MONGOLIA

Russian Military Railway.—Russia has constructed a military railway from Harkatu to Urga and the whole line is divided into four sections, on each of which a barrack has been erected.—*Chinese Report.*

CHOSEN (KOREA)

Seoul-Gensan Line.—Sixty-one miles of the railway to Cholwon, a station on the new line between Seoul and Gensan (Wonsan) have been completed and opened to traffic. At the Gensan end of this line about 10 or 15 miles of road are now being operated, and vigorous work is being prosecuted on the intervening route. It is expected that through communication between Seoul and Gensan will be available for trains by November, 1913.

STRAITS SETTLEMENTS

Straits Settlements Railways.—Beginning on January 1, 1912, the railways of the Straits Settlements came under the management of the Federated Malay States Government. The terms called for a lease of 21 years at an annual rental of $95,200, subject to septennial revision. It is proposed to sell the railways to the Federated Malay States Government, and a joint committee has been considering the question of the price to be paid.

SIAM

Siam Railways.—The following from Mr. Williamson's annual report on the Siamese Budget states that as regards the Northern Railway, it will be seen that the expenditure is estimated to be Tcs. 2,650,000 against last year's figure of Tcs. 1,315,000—that is to say, the allotment has been rather more than doubled. The explanation of this is that it has now been decided to push on with the construction of the line in question as far as Chiengmai, the chief town of Northern Siam. It will be remembered that in previous reports it was stated that, owing to the difficult and less-paying nature of the country which the railway had then reached, it had been arranged for construction to be temporarily suspended when the line had advanced to a place called Dene Chai, about 223 kilometres south-east of Chiengmai. This was done in the interests of railway finance, in order to prevent any serious diminution in the dividend paid by the line; for it is obvious that a rapid and continuous extension through the less thickly populated parts of the country must, unless time is allowed to develop traffic, adversely affect the dividend-paying capacity of the whole railway. The necessary period for this purpose having now elapsed, it has been deemed opportune to continue the work of construction northwards: hence the increased allotment this year, which is made out of the unexpended balance of the last loan of £3,000,000 taken in January (1907). For the main line of the Southern Railway, which is being built out of the £4,000,000 loan arranged for at the time of the Anglo-Siamese Treaty of three years ago, there is also an increased provision of over 2 million ticals—the allotments for the current year amounting to the large sum of Tcs. 8,630,000. In the case of the branch lines of the Southern Railway, a sum of Tcs. 1,200,000 odd is shown for the first time as expenditure chargeable to loan funds, and a word of explanation may be offered as to this. These lines, as stated in last year's report, have hitherto been constructed out of the money received from the Federated Malay States Government in repayment of the loans formerly granted by Siam to the ceded States of Kedah, Kelantan and Perlis. These loans (to the amount of about 5 million ticals) having been made by the Treasury, were paid back to the same source when refunded. The branch lines have, therefore, up to the present, been constructed from Treasury Reserve funds. Their total cost, however, is estimated at nearly 8¼ million ticals, while the sum available out of the refunded loans amounts to about 5 million ticals only, as already mentioned; hence it became necessary, on the exhaustion of the latter (as has taken place this year), to find some other source from which the balance of the cost of construction could be met. It has accordingly been arranged, for the time being, to provide the money out of the remainder of the loan funds still in the hands of the Government—the intention being to raise a fresh loan, at some future date, to cover this expenditure and to meet the further sum required to complete the Northern line to Chiengmai.

SIBERIA

The Amur Railway.—The Tsar has addressed to the Governor-General of the Amur Region a message of congratulation on the progress of construction of the Amur Railway, and has expressed his thanks to all Russians engaged on the works. Credits amounting to over 750 million roubles (£75,000,000) have been voted for this enterprise during the last five years. There is reason to believe that the railway is expected to be completed in 1915, or, at latest, in 1916. The section as far as Blagoveshchensk will probably be opened for traffic in the course of this year.

TRAMWAYS

Shanghai Tramways. (Foreign Settlement.)—The returns of the Shanghai Tramways (Foreign Settlement) for month ended January 31, are as under:—

	1913.	1912.
Effective receipts (after deducting loss by exchange)	$68,406.02	$60,877.06
Passengers carried	3,325,303	3,013,019
Car Miles run	223,899	226,601

The loss by exchange of subsidiary coinage for the month was $16,579.04 equal to 20.82% of the gross cash collected on the cars as compared with $18,337.62 equal to 24.84% for the corresponding month last year.

The returns of the Shanghai Tramways (Foreign Settlement) for the week ended January 29 are as under:—

	1913.	1912.
Effective receipts (after deducting loss by exchange)	$ 15,176.55	$ 13,216.87
Passengers carried	743,932	658,456
Car miles run	50,350	51,124

The loss by exchange of subsidiary coinage for the week was equal to 21.38 per cent. of the gross cash collected on the cars as compared with 25.11 per cent. for the corresponding week last year.

For the week ended February 5:—

	1913.	1912.
Effective receipts (after deducting loss by exchange)	$18,120.54	$14,535.09
Passengers carried	898,812	720,045
Car miles run	55,552	51,191

The loss by exchange of subsidiary coinage for the week was equal to 21.50% of the gross cash collected on the cars as compared with 24.67% for the corresponding week last year.

For the week ended February 12:—

	1913.	1912.
Effective receipts (after deducting loss by exchange)	$ 15,692.71	$ 14,240.77
Passengers carried	745,213	697,692
Car miles run	47,947	51,852

The loss by exchange of subsidiary coinage for the week was equal to 22.56 per cent. of the gross cash collected on the cars as compared with 23.02 per cent. for the corresponding week last year.

For the week ended February 19:—

	1913.	1912.
Effective receipts (after deducting loss by exchange)	$ 15,210.90	$ 15,655.66
Passengers carried	750,250	774 811
Car miles run	50,661	56,544

The loss by exchange of subsidiary coinage for the week was equal to 22.79 per cent. of the gross cash collected on the cars as compared with 24.59 per cent. for the corresponding week last year.

A Hankow Tramway.—The *Ta Han Pao* reports that a tramway car company has been organized at Hankow and that orders have already been sent to Shanghai for the purchase of material.

Peking Tramways.—It is reported that the Peking Tramway Company has raised a loan of two million francs from a French Bank.

PERSONAL

Mr. Hugh Horne, Acting British Consul at Shimonoseki, has been appointed Vice-Consul at Kobe, vice the late Mr. A. F. Firth.

Mr. Crawford M. Bishop has been appointed, by the Department of State at Washington, to the position of Deputy Consul-General of the United States at Tientsin. Mr. Bishop has taken over his new duties.

Mr. S. Sakaguchi, Vice-Manager of the Fushun Colliery, has been ordered to visit Europe, America, and India on an educational tour, and will leave the Colliery shortly first for Europe, via Siberia.

Mr. W. Trautschold, new Russian Consul at Dairen, transferred from Hakodate, has arrived at Dairen. He was very popular, especially with the Japanese authorities, during his previous tenure of office at Dairen as Acting Consul prior to the arrival of M. K. Bologovskoy as Consul.

The decoration of the Felicitous Grain has been bestowed by the Chinese Government upon Mr. E. G. Byrne, of the firm of Schiele and Byrne, Hankow, also upon Messrs. J. Archibald sr. and J. A. Brailsford of the "Central China Post."

Mr. O. Mueller, who was long at Tientsin as engineer in charge of the Siemens-China office, has gone home on promotion to the head office in Germany.

The appointment has been announced of Judge James C. McNally, American consul at Tsingtau, to be consul at Hanover, Prussia. Mr. McNally was formerly American consul at Nanking and was a close friend of the late Viceroy Tuan Fang.

The Order of the Crown of Italy has been bestowed on Don. U. Theodoli, of the Chinese Maritime Customs at Hankow. This was in recognition of the services rendered by Mr. Theodoli to the Military Attache during the revolution.

The *China Critic* states that Mr. T. W. Tuckey, the Railway Engineer, who has been in charge of the construction of the Southern portion of the Tientsin-Pukow Railway, has been appointed consulting Engineer to the committee for laying out the port and town of Pukow, the southern terminus of the Tsin Pu line.

Mr. N. C. Sahlin, commercial attache to the Swedish Legation, has returned to Tokyo after his leave of absence.

Mr. Alexandre Mariani, the new Secretary of the Italian Embassy, has arrived at Tokyo.

Mr. E. A. Herrera has assumed charge of the Vice-Consulship of Argentina at Kobe.

Dr. Kuehne, German Vice-Consul at Yokohama has been promoted to take charge of the Consulate-General, succeeding Mr. von Syburg.

Mr. Moritz de Szent Ivany, who has been appointed to succeed Baron Franckenstein as Councillor to the Austro-Hungarian Embassy, has arrived at Tokyo.

Mr. J. van Haute, Consul for Belgium in Hankow, has been transferred to Batavia. Mr. Nemery from Peru will be Mr. van Haute's successor in Hankow.

Mr. S. Kurokawa, of the Nippon Yusen Kaisha office, Shanghai, has been transferred to the Tokyo office. His successor as assistant manager, is Mr. S. Yasuda.

Mr. S. K. Hornbeck, Ph.D., has gone to Mukden to take up a professorship in the Fengtien Law College.

Mr. Harry de Gray, Chairman of the Shanghai Municipal Council, left for the United States in January. A large number of the Sikh branch of the Police were drawn up on the Customs jetty in honour of the highly esteemed chairman.

Mr. H. G. Baugh, who was in charge of the U. S. Consulate at Saigon, passed through Shanghai recently in company with Mrs. Baugh, on his way Home. Mr. Baugh has retired from the Consular service, and is to devote his activities to other work. Another member of this service who is at present missed in the Far East is Mr. Hamilton Butler, who was in the Consulate at Canton, and, it will be remembered, was formerly Mixed Court Assessor at Shanghai. He has likewise gone to the States.

The appointment of Mr. Maxime de Stoutz as First Secretary of the Swiss Legation at Tokyo is now officially announced. The new Secretary is successor to Mr. Henry Stroehlin, who has been transferred to Paris as Second Secretary of the Legation. Mr. de Stoutz is shortly expected in Tokyo.

Mr. F. G. Sale, managing director of Messrs. Sale and Frazar, Ltd., will entirely retire from business on April 30, and with his family leave Japan for England early in May.

Mr. C. E. Sargent, Vice and Deputy Consul of the U. S. Consulate at Newchwang has left for America on home leave.

Mr. D. McColl has resumed control of the Shanghai tramways after a trip to England.

Mr. P. Von Buri, who for the past six years had been Consul-General at Shanghai, left by the German liner *Bremen*, on February 15, accompanied by Mrs. Von Buri, for Berlin. Mr. Von Buri has been appointed Minister at Siam and will take up his duties shortly.

The marriage of his Honour Sir William Rees Davies, Kt., Chief Justice of Hongkong, to Hilda Kathleen Chaplin, second daughter of the late Mr. W. E. Blennerhassett Atthill, of Faversham, Kent, was solemnised on February 11 at the Peak Church, Hongkong, by the Reverend G. B. Berry, M.A. Sir William and Lady Rees Davies left immediately after the wedding by the s.s. *Gocben* for a fortnight's stay in the Philippine Islands.

The Hon. Mr. E. Osborne left Hongkong for good on February 8 after thirty years residence in the Colony.

Mr. K. Inouye, heir of Marquis Inouye, has been nominated Japanese Ambassador to London, in succession to Baron Kato.

Mr. Frank Beckwith, who was appointed Engineer-in-Chief to superintend the construction of the American section of the Hukuang Railway was entertained on January 22 in New York, prior to his departure for China by Mr. Willard D. Straight who, as representative of J. P. Morgan & Co., negotiated the Hukuang loan, at a luncheon. Among those present were Mr. Silas D. Webb, president of the China and Japan Trading Company; Mr. William Barclay Parsons, who was connected with the Canton-Hankow Railway under the old American concession; Mr. James R. Morse, president of the American Trading Company; Mr. E. P. Thomas, president of the United States Steel Products Company; Mr. H. T.S. Green, president of the International Banking Corporation, and a number of other financiers and business-men having interests in China and the Far East. It is understood that Mr. Beckwith was appointed upon the recommendation of the American Society of Civil Engineers. Mr. Beckwith arrived in Peking towards the end of February.

COMPANIES

Hongkong and Kowloon Wharf and Godown Co., Ltd.—The Hongkong and Kowloon Wharf and Godown Co.'s Accounts for 1912 shew a balance at credit of Profit and Loss account of $518,490.91 which, subject to audit, the Directors recommended should be disposed of as follows:—

To pay a dividend of 7% from Working profits	$210,000.00
To pay a bonus of 2% from profits on sales of property	60,000.00
Write off Wharves, &c.	76,791.17
Transfer to Equalization of Div. fund	150,000.00
Carry forward	21,699.74

Soy Chee Cotton Company.—The Directors report recommended the shareholders to apportion the balance at credit of Profit and Loss Account on December 31st, 1912, of Tls. 172,082.24, as follows:—

To pay a dividend of Tls. 5 on 20,000 shares	Tls.	100,000.00
To place to dividend equalization fund	Tls.	27,000.00
To write off for depreciation	Tls.	25,000.00
To 10 per cent. commission to General Managers	Tls.	16,024.66
To carry forward to new account	Tls.	3,157.58

Tokyo Gas Company.—The Tokyo Gas Company submitted the following accounts to a general meeting of its shareholders held on January 20:—

	Yen.
Profit for the half year	1,575,156
Amount brought forward	11,689
Total	1,586,845
Royalities (6 per cent.)	94,509
Bonus and table expenses of officers (2 per cent.)	31,503
Funds for pensions (1 per cent.)	15,751
Reserves (5 per cent.)	79,000
Special reserves (5 per cent.)	79,757
Dividend (10 per cent.)	1,270,000
Amount carried forward	16,323

Hongkong Hotel—The profit of the Hongkong Hotel Company, Limited, for the half year ended 31st December, 1912, amounted to $85,618, which subject to audit, the Board of Directors proposed to apportion as follows:—

To pay a dividend of $3.00 on 12,000 old shares	36,000
To pay a dividend of $1.50 on 8,000 new shares	12,000
To write off Furniture and Fixtures account	15,000
To write off Electric Light Installation account	10,000
To transfer to Repairs and Renewals account	10,000
To write off Hotel Launch account	1,000
Carry Forward	1,618
	$35,618

Kowloon Land and Building Co., Ltd.—The twenty-fourth report of the board of directors of this company states that the balance of profit and loss account for the year, including $465.02 balance brought forward from last account, after writing off all charges and expenses, amounted to $18,156.45. The directors recommended that a dividend of $2.80 per share be paid, which, after providing for directors' and auditor's fees, would leave a balance of $806.45 to be carried forward to the credit of a new profit and loss account. Directors: Messrs. T. F. Hough and J. M. E. Machado retire by rotation, but offered themselves for re-election. Auditor: Mr. R. C. Edwards having resigned on leaving the Colony the accounts were audited by Mr. A. C. Hynes.

Osaka Shosen Kaisha.—The half-yearly general meeting of the Osaka Shosen Kaisha on January 24 approved the dividend for last half-year at the rate of 9 per cent. per annum and re-elected Messrs. Sugimura and Hanta Ryotaro as auditors. Afterwards Mr. Nakabashi, president of the company, said that the activity of marine transport business lately prevailing had improved the position of the company, so that it was enabled to set aside a sum of Y.1,500,000 to form a reserve for equalisation of dividend after paying a dividend at the rate of 9 per cent. He believed that it would not be difficult to obtain the same satisfactory result for the present period. The Indian service of the company, the opening of which had long been under consideration, was inaugurated last month, and a full cargo was secured. This service would be continued regularly once a month. Mr. Nakabashi added that the company consulted the Nippon Yusen Kaisha and joined a conference of the steamship companies on the service between Japan and Bombay.

Hongkong, Canton and Macao Steamboat Co., Ltd.—At the Half-Yearly Meeting of Shareholders of the Hongkong, Canton and Macao Steamboat Co., Ltd., held on 11th February, the Directors recommended that a dividend for the half-year of One dollar per share, or $80,000, be paid to shareholders; $25,000 be written off the book value of steamers; $10,000 be written off value of wharves, properties and lighters; $5,000 be transferred to credit of Special Repairs Fund, leaving a balance of $22,845.88 to be carried forward to new account.

Brazilian Emigration Co.—The organization of the Brazilian Emigration Company (Japanese) is stated to be progressing. Of the total shares (20,000 representing 1,000.000 yen) 12,000 have already been subscribed. The subscription is to be closed on the 15th of March next and subsequently there will be held an organizing general meeting for the drafting of the articles of association and election of directors. The head office will be opened in Tokyo and a branch established at Iquape, Soo Paulo, Brazil. The land, which was offered by the Brazilian Government to the Tokyo Syndicate as a free grant is said to cover an area of 122,500 acres, and is located in Iquape.

Okura Saw Mills, Ltd.—The Okura Saw Mills, Ltd., has been organized at Antung on the subscribed capital of Y.200.000, of which sum one-half is to be called up, to start with. The following officials have been elected:—Mr. N. Izaka, President; Mr. S. Shikimura, Managing Director; Mr. K. M. Okura and Mr. Shimizu Directors. When the mills now in course of construction at Liutaokou, near Antung, are opened to operation, those hitherto worked by Messrs. Okura & Co. at Shahochen nd Yongampho will be shut down.

FINANCIAL

Banking in Japan.—During the latter half of 1912, 2,212,743 bills, representing 2,071,299,376 *yen*, were cleared at the Bankers' Clearing House in Tokyo, being an increase over the preceding half year of 188,653 bills, amounting to 148,050,649 *yen*. The year's totals show an increase over the previous year of $11\frac{1}{16}$ per cent. and $11\frac{4}{10}$ per cent., in the number and amount of bills. During the last half year 496 persons were declared defaulters at the Clearing House, showing an increase of 155 persons over the corresponding period of the preceding year.

Japanese Government Loan.—The Japanese Government is said to be contempleting the raising of a loan of from 150 million to 200 million yen to be employed as an agricultural fund. As an instalment of the scheme loan bonds for fifty million yen will be placed on the London and Paris markets shortly.

Tokyo Municipal Loan.—It is announced that the Electric Bureau of the Tokyo Municipality has planned to issue a big loan of 15,500,000 yen for the expansion of its works both tramway and electric light. Whether it will be issued at home or abroad, and the date of issue, are as yet unsettled. 5 per cent. may be probably the rate of interest for the new loan.

Water Power Loan.—Another loan of 3,500,000 yen is to be shortly issued for the Kinugawa Water Power Co. as was decided at the company's last general meeting on Dec. 29th. 2,000,000 yen will be issued in Tokyo and the rest 1,500,000 yen in Osaka. The underwriters in the former city are the Kitahama and Masuda banks, and those in the latter the First, Teikoku and Nippon Life Insurance Companies.

Hokkaido Development Bank.—Mr. Minobe, President of the Hokkaido Development Bank, speaking at a general meeting of shareholders said that the increased stringency of the money market during the past term had caused a corresponding dullness of trade in the Hokkaido, but the work of development had not suffered the slightest decline. The demand for capital continued to increase. The applications tor fixed loans and loans for repayment by annual instalments amounted, together with those brought over from the preceding year, to 6,159, representing 6,987,394 *yen*, of which 5,358 representing 5,982,994 *yen* were settled, resulting in fresh loans of 3,490,547 *yen*, the total loans at the end of last year showing an increase over those of the previous year of 1,835,850 *yen*. The results of the term's working showed a slight improvement over those for the preceding year. The following are the Bank's accounts for the term just ended:—

	Yen.
Profit	302,309.405
Reserves for loss	80,300.000
Reserves for equalization of dividends	15,200.000
Dividend	130,500,000
Bonus	12,580.000
Amount carried over	63,729.475

Japan Industrial Bank.—The ordinary general meeting of the Japan Industrial Bank was held on February 8. Mr. Tsukuda, the Chairman stated that the amount of investment made by the Bank during the period, was 18,970,838 *yen* in national bonds and local debentures, 5,242,701 *yen* in company shares and debentures, 3,862,719 *yen* in gold and silver mines, and 49,169,956 *yen* in various lines of business enterprises, making a total of 77,246,204 *yen*, an increase of 1,852,883 *yen* over the amount invested during the previous period. The gross earnings during the period amounted to 2,639,319 *yen*, the figure including the balance brought over from the previous account. After writing off the disbursement of 1,738,132 *yen* from the above mentioned sum, there remained 901,187 *yen*, which represented the actual net gain of the bank during last term. From this net gain the bank proposed to distribute the usual dividend of 8 per cent. to shareholders. The following plan of accounts and distribution was subsequently submitted and unanimously adopted:—

	Yen.
Gross receipts	2,595,313
Balance brought over from the previous term	44,009
Total	2,639,319
Disbursements	1,738,131
Net gains	901,187
This was distributed as follows:	
Reserve against losses	105,200
Reserve for equalisation of dividend	20,000
First dividend (5% per annum)	437,000
Bonus to officials	25,000
Second dividend (3% per annum)	262.500
Balance carried forward to next account	51,187

Hongkong and Shanghai Banking Corporation—The ninety-fifth report of the court of directors stated that for the half-year ending 31st December, 1912, the net profits including $1,960,288.64, balance brought forwards from last account, after paying all charges, deducting interest paid and due, and making provision for bad and doubtful accounts, amount to $5,031,435.48. The directors recommended the transfer of $200,000 from the profit and loss account to credit of the silver reserve fund, which fund would then stand at $17,200,000, and writing off Bank premises account the sum of $200,000. After making these transfers and deducting remuneration to directors there remainded for appropriation $4,616,435.48, out of which the directors recommended the payment of a dividend of two pounds sterling per share, viz., £240,000, and a bonus of five shillings sterling per share, viz., £30,000, amounting in all to £270,000, which at $2/\frac{7}{8}$, the rate of the day, would absorb $2,605,025.13. The balance, $2,011,410.35 was to be carried to new profit and loss account.

A SIX PER CENT. CHINESE "PUBLIC LOAN"

The Chinese Government has been placed in grave difficulty by the delay in the flotation of the expected Reorganisation loan of £25,000,000, and finds time passing apace with no prospect of the arrival from foreign sources of the wherewithal necessary to meet outstanding engagements. That the Government will have to think seriously very shortly is obvious. The Minister of Finance, pressed on all sides for funds to carry on administrative work, scarcely knows where to turn. Endeavors to raise loans abroad have failed, no financiers being prepared to take the risk of conflicting with the wishes of the foreign governments, and China has been thrown back on her own resources. As yet the Government has made no declaration to the provinces on the loan situation, but with the hope of raising some money to tide over the period which promises to elapse before the Foreign Governments settle their conflicting claims to representatives on the advisory staff, the Minister of Finance has made suggestions to meet the difficulty. One is to float a 6% loan, another to enforce a tax on incomes, and a third is to establish a transportation company.

Of the proposals the loan is about the most simple, and as the last Minister, Mr. Hsiung Hsi-ling had prepared a loan scheme (ostensibly with three definite objects in view), it was decided to promulgate it. The "Government Gazette" of February 19, therefore, contained the scheme, and the Government now look to the Chinese people to subscribe the amount, asked for, though if the fate of previous patriotic loans is to be taken as a criterion the Government is doomed to disappointment. As a matter of record we give a translation of the details of the loan:—

THE 6% PUPLIC LOAN OF THE FIRST YEAR OF THE REPUBLIC OF CHINA

1. In order to carry out the three following items of reform, the Government shall raise a public loan of $200,000,000. The loan shall be styled the "6% Public Loan."

(*a*) To increase the capital of the Bank of China.

(*b*) To liquidate the small loans on short periods.

(*c*) To reform the Government paper currency of the provinces.

2. According to the demand, the Minister of Finance shall fix the amount to be raised and the price of the bonds from time to time.

3. Upon each occasion, the amount, the price, the date and the payment decided by the Minister of Finance shall be published previously in the "Government Gazette."

The lowest purchasing price of the said bonds shall be $92 on each $100 face value.

4. If at any time the amount required be over-subscribed, the Minister of Finance shall issue bonds to the highest bidder, till the fixed amount is taken up. If the prices offered be equal, the numbers of bonds applied for by the respeetive purchasers shall be proportionately reduced according to the amount fixed.

5. There shall be four denominations for the bonds:—

(*a*) $1,000. (*b*) $100. (*c*) $50. (*d*) $10.

6. The payment of the bonds shall be made by the purchasers by instalments. Should the payment be overdue, from the time overdue till the time of payment an annual interest of seven per cent shall be charged. In the case of those purchasing $10 bonds the payment shall be made at once. If three months after the period of full payment be due, the money is still unpaid, these bonds shall be purchased by the Government which may refund the money already paid by the purchasers in question, less the interest and other charges fallen due.

7. The interest on this public loan shall be 6%.

8. No names of purchasers shall be specified on the bonds.

9. The interest of the bonds of this loan shall be paid in the 6th and the 12th months.

10. Within the first five years only interest shall be paid, after which, *i.e.*, within the period of 30 years, redemption of the bonds shall be made by the drawing of lots. The amount of redemption shall be published beforehand in the Government Gazette by the Minister of Finance.

11. The security of the loan shall be the Stamp Tax and the tax on Title Deeds.

12. The raising of this loan, and the payment of interest and principal shall be managed by the Bank of China and its Agents.

13. From the date of redemption of the bonds and the payment of the interest, these bonds and the coupons may be used for the payment of taxes and other official payments.

14. This loan may be considered as security for the gold reserve of any Bank.

15. The bonds may be transferable or be mortgaged, and may be used as security, when such be required in any official service.

16. Detailed regulations of this loan shall be fixed by the order of the Minister of Finance.

LIGHT AND POWER

Wuchang Electric Light-Plant.—Negotiations for the lighting of Wuchang city have now been completed A stock company with exclusively Chinese capital has been formed, the Government has become interested in the exploit and has contributed land and buildings. The whole contract for the erection of a complete power station has been given to Messrs. Siemens China Electrical Co. The land and buildings of the Industrial School, near the Lotus Pond and the Emperor's Temple in Wuchang, have been the contribution to the new company as a site for the power house. The contract for the electric light station provides only for the taking over of the completed works, and gives the foreign firm a free hand in the order of machinery, passing plans for the new building and general erection. The intention of the company is to show, that it is possible for a Chinese firm equipped on the most modern lines, and run entirely under Chinese supervision to show a satisfactory balance sheet. In order not to run up too much expense at the start the plant at first will be small, consisting of two 400 horse power engines and Siemens dynamos, but provision will be made for later extensions, principally in the installing of steam turbines. The current will be carried through a three phase transformer, and then to the consumers by a network of overhead wires. The station itself will be one of the most up to date in the East, the constructors profiting by the mistakes of older enterprises.

A notable feature of the new company is that the promoters promise to issue a statement year by year of the running expenses and profits. The latter, although at first not expected to be large, are yet expected to be satisfactory, for it is thought that a number of the factories in Wuchang will contract for electric lighting and power.

Japanese Electric Plants.—According to a recent report issued by the Japanese Department of Communications, the number of electric works at present is 1,391, which shows an increase of 318 (about 30 per cent.) compared with that of the previous year. The total amount of capital is yen 462,119,927 of which yen 144,985, 446 is invested in works not yet in operation, showing an increase of 32 per cent. in comparison with that of the previous year.

The rate of profits per capital paid in during the year 1911 was as follows:—

	%
Those supplying electricity	12
Electric railways	8
Those supplying electricity and running railways at the same time	4

With respect to the average receipts and expenditure of different kinds of electrical undertakings, we find that in those supplying electricity the expenditures amount to yen 67 against the receipt of yen 100, or 4 sen business expense of 1 kilowat supplied at 6.2 sen. This shows an average rate of dividend of 9.7%

Hydro-Electric Plant for Bulacan.—The Angat river in the province of Bulacan of Norzagaray, is to be harnessed for the purpose of development of electric power, if the application of E. B. Bruce, general attorney for the Manila Electric Railroad and Light Co. and the Philippine Railway Co. is granted. It means cheap light and power for Manila.

Mr. Bruce has applied to the insular government for certain water rights on the Angat river involving the use of 2,000,000 liters of water per second of time by diversion and return to the original source of supply below the power plant contemplated. This is the maximun flow of the river as estimated at the point where the dam will be located in the municipality of Norzagaray. The works to be installed at this point will consist of a storage dam, a power dam with sluices, penstocks, and power house with equipment and another power house, all three dams being a part of one storage system. The water is to be restored immediately below the works. It is proposed to develop 1,000 h. p. as a minimum with an increase to the maximum of power available which means ultimately at least 2,500 h.p. available at mean low water. This power plant site is situated about sixty miles from Manila and is believed adapted to the furnishing power for Manila and all the towns along the mainline. It will be one of the largest hydro-electric power plants so far proposed in the islands and means the investment of several million dollars and cheap light and power, not only for Manila but for the provincial towns in central Luzon.

Japanese Railway Board Plant.—The electric tram service on the Yamanote (suburban line of the Japanese Railway Board, which runs between Gofukubashi and Uyeno *via* Shinagawa and Shinjuku, is operated at present with electricity (2,000 H. P.) supplied by the Municipal Electric Bureau, the shortage being supplied by the Kashiwagi power station, formerly of the Kobu Railway, which was purchased by the Railway Board in 1906. On the completion of the Central Station at Marunouchi, construction of which is making headway, the Railway Board will replace the present steam train service on the Shimbashi-Yokohama and other short distance lines with electric trams. In view of the increase of demand for electricity with the change, the Railway Board started in October, 1911; the construction of a power-house at Komukai on the Kanagawa side of the River Tama, near the Yaguchi ferry, and about a mile South of the Kamata Station. The factory has been already completed and men are now engaged in the planting of four dynamos each with a capacity of 1,500 kilowatts. The factory is expected to be in working order by the end of this year.

WATERWORKS

Irrigation Works at Porac.—Victoria Singian as administratrix of several estates proposes to divert the waters of the Afge river, a small stream fed by springs in the barrio of Maliunlu municipality of Porac, Pampanga. The point of diversion is about three kilometers from Maniband and the amount proposed diverted is 125 liters per second of time in the dry season and 770 liters in the wet season. The work proposed will consist of a dam 5.75 meters high, 4.3 meters wide provided with two steel gates of 2 × 2.75 meters each, the banks of the stream to be protected by a wall of reinforced concrete about 5.75 meters high and one meter in thickness. The purpose of the plant proposed is to irrigate an area of 2,375,755 square meters of agricultural land.

Tientsin Waterworks Co, Ltd.—The annual general meeting of the shareholders in the Tientsin Water Works Co. Ltd., was held in the offices of the Secretaries, Messrs. Wm. Forbes and Co., on February 14. The Balance Sheet and Statement of Accounts was passed, and a final dividend of 5 per cent. was declared, thus making a total dividend of 0 per cent. for the year.

Tokyo Water Works.—According to the Tokyo Municipal Authorities, the water works revenue for the 2nd year of Taisho (1912) is estimated at 2,174,342 *yen*, which is a decided increase over the figures recorded for the last five years, as shown in the following table:—

Fiscal Year.	Water Works Revenue. *Yen.*
1909	1,401,579
1910	1,464,644
1911	2,122,638
1912	2,041,140
1913	2,174,342

Expenditure has also increased annually, the estimated figures for 1912 being 1,927,865 *yen* as against 834,661 *yen* last year. A satisfactory feature of the annual waterworks budget is that owing to the constant excess of income over expenditure the surplus passed every year into the reserve fund shows an increase, as will be seen by the following table:—

Fiscal year.	Surplus. Yen.
1909	397,555
1910	324,006
1911	365,000
1912	556,993

In view of this the authorities are said to be contemplating a reduction in the water rates at an early opportunity.

IRON AND STEEL

Wakamatsu Iron Foundry.—The Japanese Government, as Mr. Wakatsuki, Minister of Finance, announced in a recent speech in the House of Representatives, intends to transfer some of the Government works to private management one by one. It is already reported that the Wakamatsu Iron Foundry will be converted into a joint enterprise of the Government and the people in the form of a joint stock corporation. Baron Iwasaki is said to be much interested in this change of the system for the said iron foundry.

MINING

Penchihu Colliery.—The Penchihu Colliery & Mining Co. hopes to put out about 250,000 tons during the current year, as compared with about 160,000 tons last year. Of this output, about 100,000 tons have been contracted for by Imperial Japanese Navy and the Edamitsu Steel Works. The remainder is to be disposed of in Chosen and South and North Manchuria, including a considerable quantity for self-consumption. In Chosen, the steel works under the management of the Mitsubishi & Co. are said to prefer Penchihu Coal to the output of the Takashima Colliery owned by the Company. Then, the Naval Briquette Factory at Pingyang has a plan of extension under weigh, and when this plan matures the present demand from this direction will also increase.

Work on the new screening plant is expected to be finished about April. The new plant is of a temporary nature, with a screening capacity for about 130,000 tons per annum. It is to be replaced about two years hence by another one of a permanent character which will be equipped with a working capacity of about three times as much.

The Matsushima Colliery.—The Matsushima colliery, on an island of that name off the coast between Nagasaki and Sasebo, Nagasaki Prefecture, is one of the important and promising coal mines in Kyushu. Its output is at present 25,000 tons a month, but when the extension work, now in progress, is completed the production will be increased to over 500,000 tons. According to a Nagasaki paper, the ownership of this colliery, which was hitherto in the Koga family of Nagasaki, has been transferred to a limited liability company with a paid-up capital of 2,000,000 yen, known as the Matsushima Mining Company. Forty per cent. of the stock is held by the former owner Mr. Koga and the remainder by the Mitsui Bussan Company. Mr. Raison, former manager of the colliery, according to the report, continues as Managing Director of the Mining Company, Mr. Ogita, manager of the Nagasaki branch of the Mitsui Bussan Company, acting as one of the Directors. At the same time it is announced that the coal from the Company's colliery will be sold by the Mitsui Bussan Company, which is the sole agent of its products, and that all contracts made by the former owner will be succeeded to and completed by the new company.

Gold Mines of Chosen.—The gold mines at Suian and Unsan, Chosen, are being worked by the American Mining Development Co. The yearly production of the Suian mine is about 1,000,000 yen, while the Unsan gold mine annually yields some 3,000,000 yen gold. These two mines are the principal gold mines conducted by foreign concerns in Chosen. Besides these, there is a gold mine at Chyansong, which has been recently purchased by a London firm and is now conducted under the management of French experts, the mining districts extending for 1,600 square *li*. This mine is, however, still in the course of experimental digging. The Kapson copper mine at Hamnan, belonging to the American Mining Development Co., and the Huchyong copper mine owned by the Italian Mining Co., are also in an experimental stage. Applications for gold mines and for gold-dust mining are occasionally sent in by foreigners, but they are all on a small scale.

The Furukawa Mining Company, obtained in October last official permission to work gold mines at Chyonmamyon and Nokoli, in Kusong district, North Pyongan province. Work on these mines has been begun by the company, employing some twenty Japanese and about two hundred Korean miners. The experimental stage of the work will be, according to Mr. Iijima, who supervises the work as chief expert, three years, and the cost is estimated at 500,000 yen. If the mines prove unprofitable, work will then be discontinued. In the course of the period during which trial work is going on, assaying and refining of ores gathered, in addition to examination of their amount and quality, will be steadily pursued. It is considered that the Korean method of refining ores by water power will also be tried, and official permission for it has already been obtained.

Amakusa Collieries.—Amakusa Island, South-western Kyushu, has long been known for its production of anthracite coal but the field has not been properly worked. The Daito Kogyo Kaisha, a Tokyo mining company, has a scheme for the development of the Shiki collieries, which are on the island, and to put it into effect will increase its capital by a million yen. The daily output of the collieries at present is 250 tons, but it is believed that it can be raised to 1,000 tons as the field is most extensive. The seams run under the sea for a great distance and the pits are only three miles from the port of Tomioka, a light railway making connection.

F.M.S. Tin Output in 1912*

	1912. Pikuls.§	1911. Pikuls.§	1910. Pikuls.§	1909. Pikuls.§	1908. Pikuls.§
January	67,566	64,333	66,277	73,612	92,983
February	72,545	53,147	64,199	46,352	62,831
March	53,698	50,132	46,850	61,100	66,402
April	67,270	54,568	60,020	65 126	62,495
May	71,849	62,868	61,935	63,131	61,632
June	59,465	64,202	62,180	75,899	67,739
July	71,175	63,799	65,350	68,627	76,708
August	74,831	68,592	70,639	73,560	70,083
September	69 133	62,862	56,324	68,827	64,804
October	65,605	68,764	60,444	68,316	76,082
November	63,386†	66,334	61,771	73,190	74,848
December	65,476†	62,091	60,909	81,156	77,412
Totals	801,999	741,698‡	736,898‡	818,887‡	854,064‡

*The figures show the monthly exports of tin and tin ore (the latter being stated at its assumed metal content) upon which duty is paid to the F.M.S. Government.

† Exclusive of Pahang, &c.

‡ Finally revised figures.

§ 1 ton (2,240 lbs.) = 16.8 pikuls.

Copper Mine at Changchun.—A newly-established copper mining company in Hua-tien-hsien, in Changchun, is about to conclude a contract with the Mitsui Bussan Kaisha at Changchun for a supply of 500,000 catties of copper. It is calculated that the mine will yield more than ten million catties of copper every month and the copper ore is said to be of excellent quality.

SHIPBUILDING

The Taikoo Dock Yards.—The frame of a new vessel is being laid down as rapidly as possible at the Taikoo Dock Yards for the Customs Department of the Philippine Government. Her length will be 165 feet over all, with a moulded breadth of 25 feet, and a moulded draught of 15 feet 6 inches. She will be equipped with a set of triple expansion engines, and two unusually large boilers of the regular marine type, which will give an indicated Horse Power of 1,400. The vessel will be equipped with a four bladed propeller, (bronze), and sixteen knots speed is called for in the contract. The vessel will be used by the U. S. Philippine Customs in making fast trips among the islands as a preventative against smuggling of opium, Chinese and contraband in general. It is expected that the vessel will be finished in about seven months.

Osaka Iron Works.—The Osaka Shosen Kaisha has placed with the Osaka Iron Works orders for three freight steamers, each of 5,000 tons loading capacity, for use on the Formosa line.

SUGAR

Sugar Mill for Panay.—The first modern sugar mill for the island of Panay has just been purchased by José Zulueta, a wealthy Filipino *hacendero* of Iloilo, from the Honolulu Iron Works, through their local agents, the Pacific Commercial Company for in round figures, P. 175,000. The mill is to be delivered within seven months from date of purchase and will be ready to grind when the next crushing season begins. Its location will be Tigbauan, a town situated on the main thoroughfare of Penay and twenty miles distant from Iloilo from which city it is easily accessible by automobile. The capacity of the mill will be 150 tons of cane per day of 24 hours, and it is guaranteed to manufacture from the sucrose of the cane crystallizable sugar of 96° polarization. The mill is absolutely complete and modern in every respect, with steel buildings designed to withstand a wind velocity of 100 miles per hour. The purchase price includes the installation of an electric light plant and a telephone system. A representative of the Honolulu Iron Works will soon arrive with the plans of the structure and the foundation bolts, and the work of construction on the foundations will be begun as soon as he comes.

New Mill for Negros.—The De La Rama family are establishing a new P. 400.000 sugar mill as a central for their seven haciendas at Bago in southern Negros, P. I. The new mill will be completed and ready for crushing in about six months. The De La Rama central will be the second largest in the Philippines and the largest in Negros. The seven haciendas, where the mill is to installed, produce on an average of 70,000 piculs of sugar annually.

Beet in Korea.—Two rival companies which were striving to obtain sanction to engage in beet sugar manufacture in Korea have adopted the advice of the Government-General and have amalgamated official sanction will shortly be given to the new company to begin operations.

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